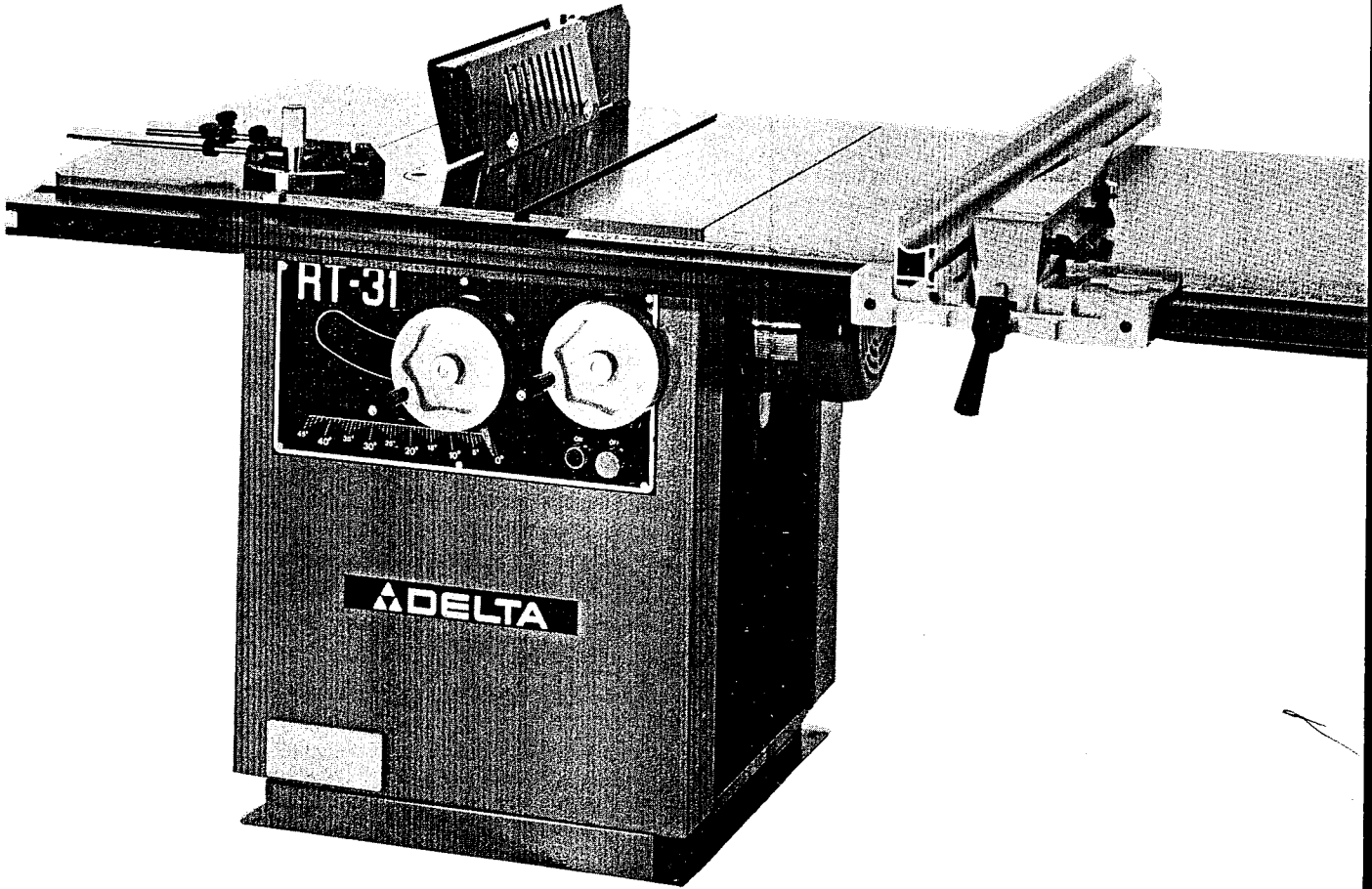


34-887 to 34-934

# 10" Panel Scoring Saw

34-889

## Model RT-31



INSTRUCTION MANUAL

Dated 10-9-85

Part No. 422-29-651-0003

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34-889

# DELTA

**WARNING: FAILURE TO FOLLOW THESE RULES MAY RESULT IN  
SERIOUS PERSONAL INJURY.**

**IMPORTANT**

As with all machinery there are certain hazards involved with operation and use of the machine. Using the machine with respect and caution will considerably lessen the possibility of personal injury. However, if normal safety precautions are overlooked or ignored, personal injury to the operator may result.

This machine was designed for certain applications only. Delta Machinery strongly recommends that this machine NOT be modified and/or used for any application other than for which it was designed. If you have any questions relative to its application DO NOT use the machine until you have written Delta Machinery and we have advised you.

DELTA INTERNATIONAL MACHINERY CORP.  
MANAGER OF TECHNICAL SERVICES  
246 ALPHA DRIVE  
PITTSBURGH, PENNSYLVANIA 15238

**SAFETY RULES FOR ALL TOOLS**

1. **FOR YOUR OWN SAFETY, READ INSTRUCTION MANUAL BEFORE OPERATING THE TOOL.** Learn the tool's application and limitations as well as the specific hazards peculiar to it.
2. **KEEP GUARDS IN PLACE** and in working order.
3. **GROUND ALL TOOLS.** If tool is equipped with three-prong plug, it should be plugged into a three-hole electrical receptacle. If an adapter is used to accommodate a two-prong receptacle, the adapter lug must be attached to a known ground. Never remove the third prong.
4. **REMOVE ADJUSTING KEYS AND WRENCHES.** Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it "on".
5. **KEEP WORK AREA CLEAN.** Cluttered areas and benches invite accidents.
6. **DON'T USE IN DANGEROUS ENVIRONMENT.** Don't use power tools in damp or wet locations, or expose them to rain. Keep work area well lighted.
7. **KEEP CHILDREN AND VISITORS AWAY.** All children and visitors should be kept a safe distance from work area.
8. **MAKE WORKSHOP CHILDPROOF** - with padlocks, master switches, or by removing starter keys.
9. **DON'T FORCE TOOL.** It will do the job better and be safer at the rate for which it was designed.
10. **USE RIGHT TOOL.** Don't force tool or attachment to do a job for which it was not designed.
11. **WEAR PROPER APPAREL.** No loose clothing, gloves, neckties, rings, bracelets, or other jewelry to get caught in moving parts. Non-slip foot wear is recommended. Wear protective hair covering to contain long hair.
12. **ALWAYS USE SAFETY GLASSES.** Also use face or dust mask if cutting operations is dusty. Everyday eyeglasses only have impact resistant lenses; they are NOT safety glasses.
13. **SECURE WORK.** Use clamps or a vise to hold work when practical. It's safer than using your hand and frees both hands to operate tool.
14. **DON'T OVERREACH.** Keep proper footing and balance at all times.
15. **MAINTAIN TOOLS IN TOP CONDITION.** Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
16. **DISCONNECT TOOLS** before servicing and when changing accessories such as blades, bits, cutters, etc.
17. **USE RECOMMENDED ACCESSORIES.** Consult the owner's manual for recommended accessories. The use of improper accessories may cause hazards.
18. **AVOID ACCIDENTAL STARTING.** Make sure switch is in "OFF" position before plugging in power cord.
19. **NEVER STAND ON TOOL.** Serious injury could occur if the tool is tipped or if the cutting tool is accidentally contacted.
20. **CHECK DAMAGED PARTS.** Before further use of the tool, a guard or other part that is damaged should be carefully checked to ensure that it will operate properly and perform its intended function - check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.
21. **DIRECTION OF FEED.** Feed work into a blade or cutter against the direction of rotation of the blade or cutter only.
22. **NEVER LEAVE TOOL RUNNING UNATTENDED. TURN POWER OFF.** Don't leave tool until it comes to a complete stop.
23. **DRUGS, ALCOHOL, MEDICATION.** Do not operate tool while under the influence of drugs, alcohol or any medication.
24. **MAKE SURE TOOL IS DISCONNECTED FROM POWER SUPPLY** while motor is being mounted, connected or reconnected.

# ADDITIONAL SAFETY RULES FOR CIRCULAR SAWS

1. ALWAYS use saw blade guard, splitter and anti-kickback fingers for every operation for which they can be used, including through-sawing. Through-sawing operations are those when the blade cuts completely through the work piece as in ripping or cross cutting.
2. ALWAYS hold the work firmly against the miter gage or fence.
3. USE push-stick when required. Always use a push-stick for ripping narrow stock.
4. NEVER perform any operation "free-hand" which means using your hands to support or guide the work piece. Always use either the fence or the miter gage to position and guide the work.
5. NEVER stand or have any part of your body in line with the path of the saw blade. Keep your hands out of the line of the saw blade.
6. NEVER reach behind or over the cutting tool with either hand for any reason.
7. MOVE the rip fence out of the way when cross cutting.
8. WHEN cutting mouldings, NEVER run the stock between the fence and the moulding cutterhead.
9. DIRECTION OF FEED. Feed work into a blade or cutter against the direction or rotation of the blade or cutter only.
10. NEVER attempt to free a stalled saw blade without first turning the saw OFF.
11. PROVIDE adequate support to the rear and sides of the saw table for wide or long workpieces.
12. AVOID KICKBACKS (work thrown back toward you) by keeping blade sharp; keeping rip fence parallel to the saw blade; keeping splitter and anti-kickback fingers and guard in place and operating; by not releasing work before it is pushed all the way past the saw blade, and by not ripping work that is twisted or warped, or does not have a straight edge to guide along the fence.
13. AVOID awkward operations and hand positions where a sudden slip could cause your hand to move into the cutting tool.

## UNPACKING AND CLEANING

The RT-31, 10" Panel Scoring Saw is shipped in two containers: the basic saw in a crate; the Unifence in a carton. If the 34-876, Unifence Table is purchased, it is shipped in a separate carton. Remove the Unifence and all loose parts from the carton and the Unifence Table from its carton. Separate the shipping crate from the saw and unpack all loose items shipped with the saw. Fig. 1, illustrates the RT-31, 10" Panel Scoring Saw with the shipping crate removed.

Remove the protective coating from the machined surfaces of the saw using a soft cloth moistened with kerosene (do not use acetone, gasoline or lacquer thinner for this purpose). After cleaning, apply a good quality paste wax to all machined surfaces.

To avoid damage in transit, the motor is secured in place with a shipping strap (A) Fig. 2. This shipping strap must be removed before putting the saw into service.

## ELECTRICAL CONNECTIONS

The electrical rating of the RT-31 10" Scoring Saw is either 230 volts, single phase or 200-220/440 volts, three phase.

Before connecting electrical power to your saw, be certain the voltage rating of the electrical power system agrees to the voltage rating of your machine within  $\pm 10\%$ .

Refer to the Electrical Instruction Manual supplied with your machine for instructions on how to connect electrical power.



Fig. 1

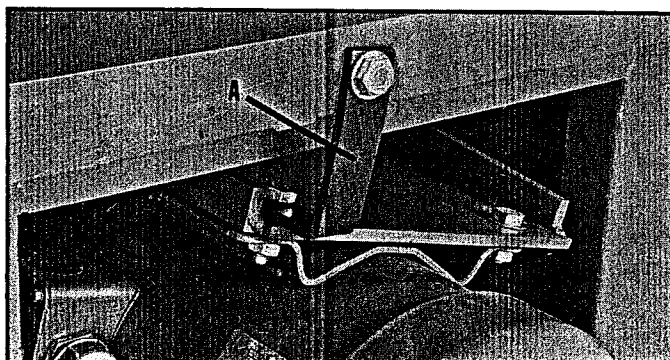


Fig. 2

## CHANGING VOLTAGE ON THE THREE PHASE SAW

The standard three phase RT-31 10" Scoring Saw is shipped wired for 220 volts. If you desire to operate the three phase saw at either 200 or 440 volts, refer to the "Changing Voltage of LVC Motor Starters" section in the electrical manual supplied with your saw.

The following steps must be completed to change the operating voltage on the saw:

1. Move the transformer primary pigtail to the proper terminal corresponding to the new input voltage.
2. Change the leads in the motor junction box for the proper line voltage as shown on the motor nameplate. The leads in motor junction box should be re-connected only when changing from 220 to 440 volts or 440 to 220 volts. The leads in the motor junction box are not changed when operating from either 200 or 220 volts. Refer to Fig. 3.
3. Change the heater elements in the overload block for the proper voltage/ampereage as shown on the motor nameplate. The heaters must be changed when going from 220 to 440 volts or 440 to 220 volts.

The heaters are not changed when switching from 220 to 200 volts or 200 to 220 volts because the same heaters are used for both 200 and 220 volts.

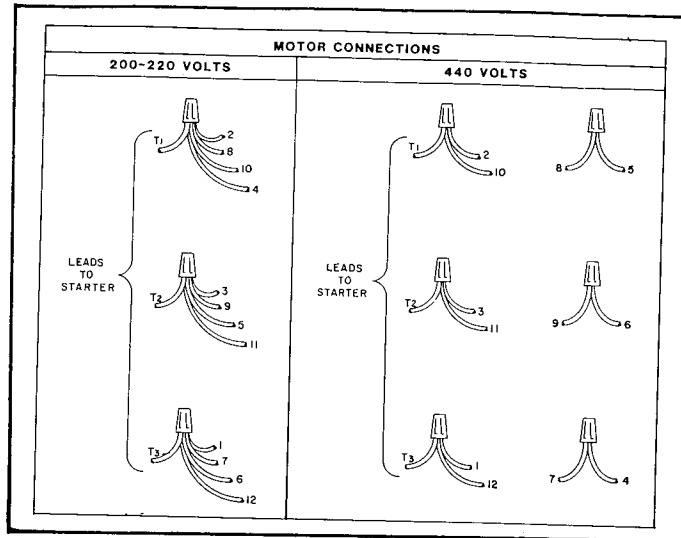


Fig. 3

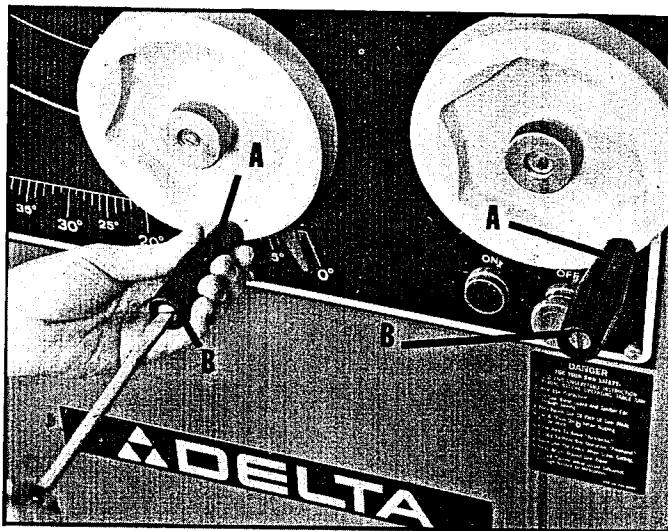


Fig. 4

## ASSEMBLING BLADE RAISING AND BLADE TILTING HANDLES

1. Assemble the blade raising and blade tilting handles (A) and lock screws (B) Fig. 4, to the two handwheels, as shown.

## ASSEMBLING EXTENSION WING TO THE SAW

The RT-31, is supplied with one extension wing which is to be assembled to the left side of the saw table. Assemble the extension wing (A) Fig. 5, to the left side of the saw table using the three screws and lockwashers (B) Use a straight edge to align the extension wing with the saw table before final tightening of the three screws (B)

Fig. 6, illustrates the extension wing (A) assembled to the saw table.

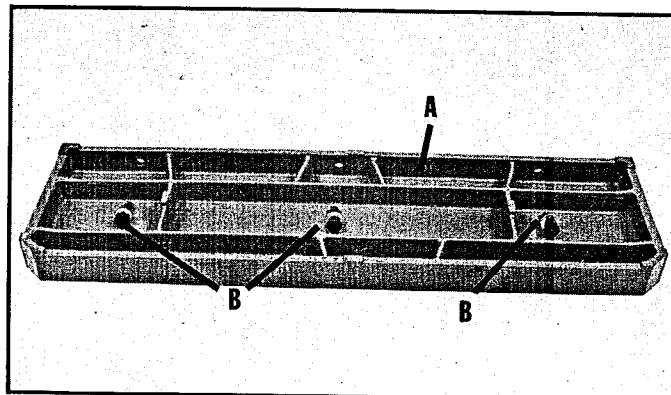


Fig. 5

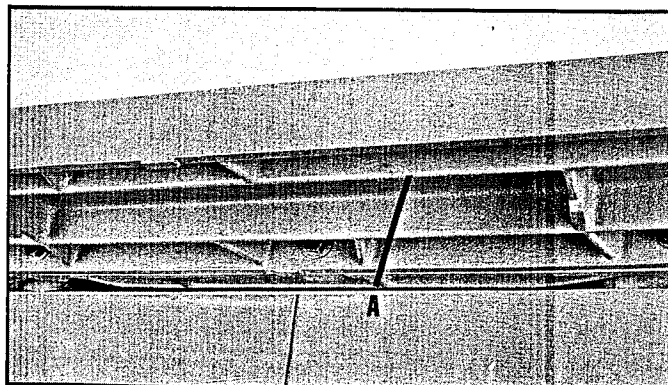


Fig. 6

## ASSEMBLING SAW BLADE

NOTE: Saw blade is not included with machine. Maximum blade size is 10" when used with scoring blade.

Make certain the saw is disconnected from power source.

1. Remove arbor nut (A), blade flange (B) and bushing (C) Fig. 7 from the arbor shaft. The bushing (C) Fig. 7, is required to allow the use of saw blades with one-inch diameter arbor holes. If saw blades with 20mm diameter arbor holes are used, the bushing is not required.

2. Place saw blade (C) on arbor and reassemble blade flange (B) and arbor nut (A), as shown in Fig. 8. Teeth of saw blade must point down on front edge nearest to scoring blade arbor.

3. Tighten arbor nut with wrench (D) while holding arbor with allen wrench (E) inserted into end of arbor, as shown in Fig. 9.

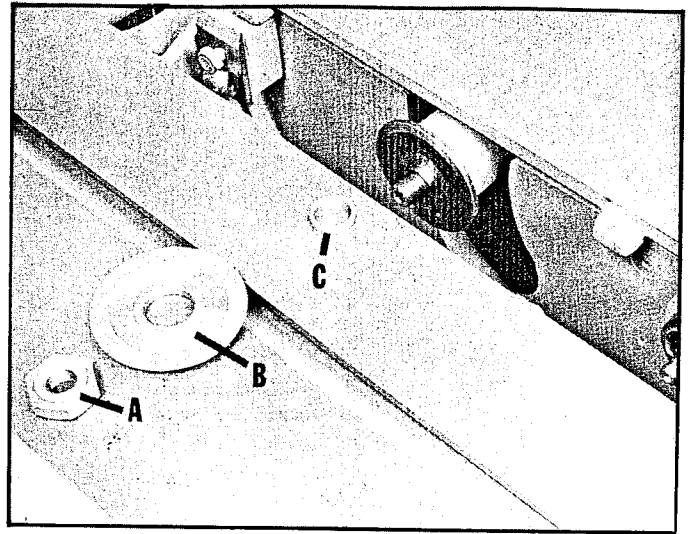


Fig. 7

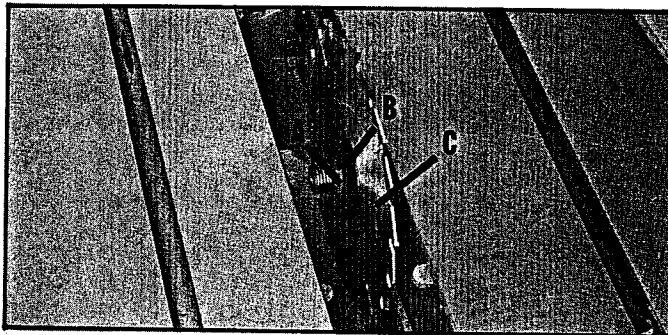


Fig. 8

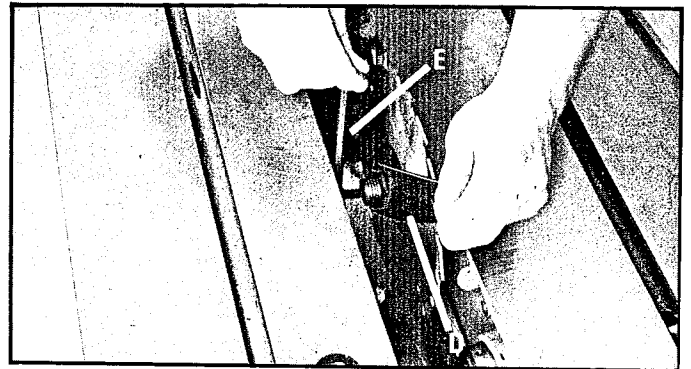


Fig. 9

## ASSEMBLING SCORING BLADE

NOTE: Scoring blade is not included with the machine.

Make certain the saw is disconnected from the power source.

1. Remove arbor nut (A), blade flange (B) and bushing (C) Fig. 10 from the arbor shaft. The bushing (C) Fig. 10, is required to allow the use of scoring blades with one-inch diameter arbor holes. If scoring blades with 20mm diameter arbor holes are used, the bushing is not required.

2. Place scoring blade (C) on arbor and reassemble blade flange and arbor nut, as shown in Fig. 11. Teeth of scoring blade must point down on rear edge nearest to saw blade.

3. Tighten scoring arbor nut with wrench (D) while holding arbor with allen wrench (E) inserted into end of arbor, as shown in Fig. 12.

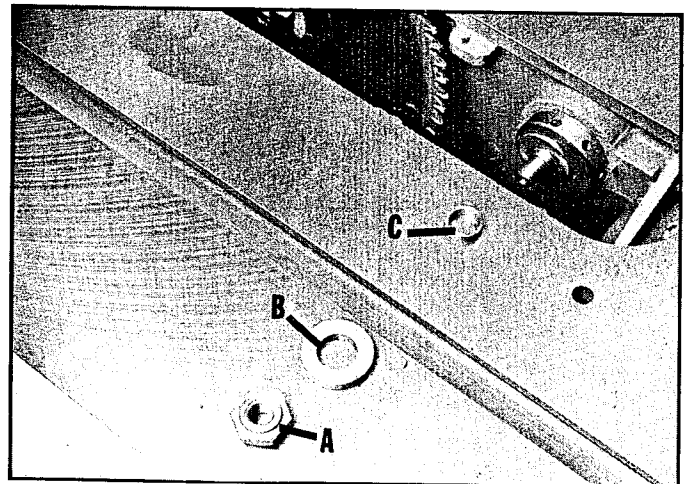


Fig. 10

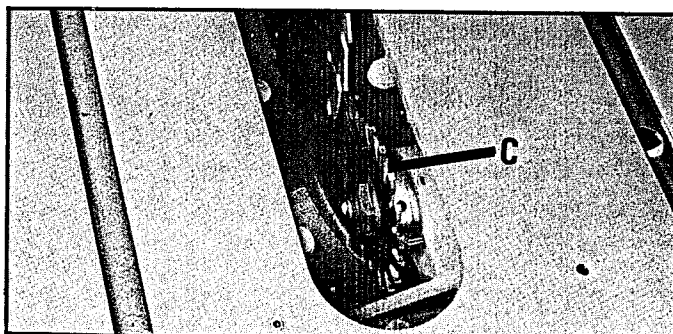


Fig. 11

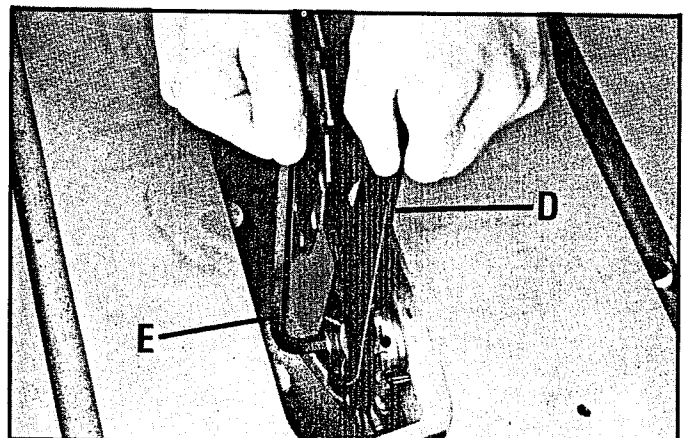


Fig. 12

## ASSEMBLING SPLITTER, TABLE INSERT AND BLADE GUARD

1. Loosen two bolts (B) Fig. 13, and insert splitter (A) between the flange and block, as shown. NOTE: Allow  $3/16$ " parallel gap between the bottom of the splitter and the table surface and securely tighten bolts (B).
2. Assemble splitter support bracket (C) Fig. 14, to bracket (D) using the two screws and washers (E). Do not tighten the screws (E) completely at this time. Fasten the other end of the splitter support bracket (C) to the rear of the splitter (A) using the four screws, nuts and washers (F). Make certain the rear of the splitter is aligned with the saw blade and securely tighten the six screws (E) and (F) and the set screw (H) Fig. 14.
3. If additional adjustment is necessary to align the saw blade with the splitter, loosen screw (J) Fig. 15, and tap the arbor and flange assembly (K) in or out to bring the saw blade into alignment with the splitter; then tighten screw (J).
4. Place the table insert (L) in position on the saw table, as shown in Fig. 16. Place a straight edge (M) across the saw table and insert to determine if the insert is flush with the saw table. If an adjustment is necessary, tighten or loosen the six screws (N) until the insert is flush with the table.
5. Assemble the blade basket guard (O) to top of splitter (A) using the two allen screws (P) and washers supplied, as shown in Fig. 17.

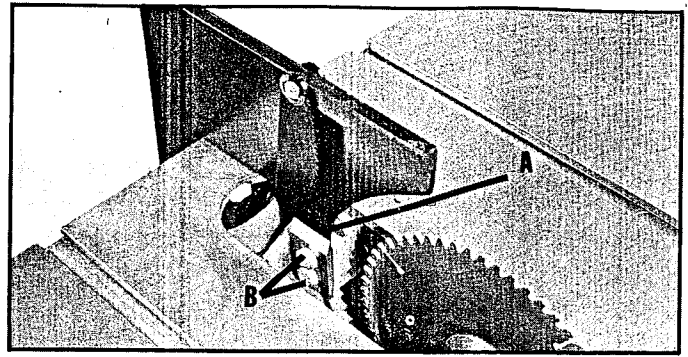


Fig. 13

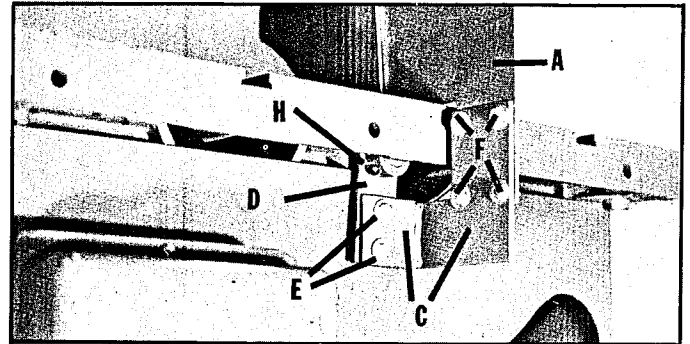


Fig. 14

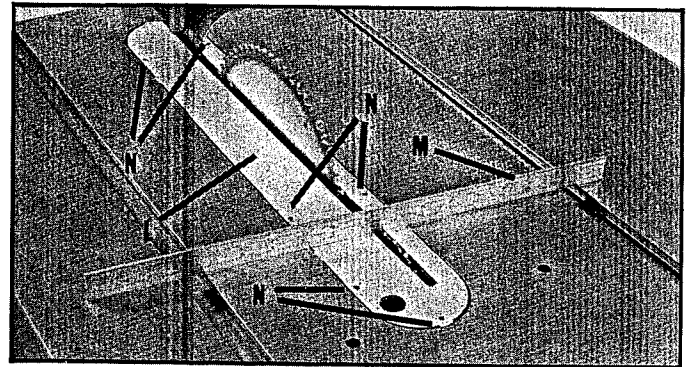


Fig. 16

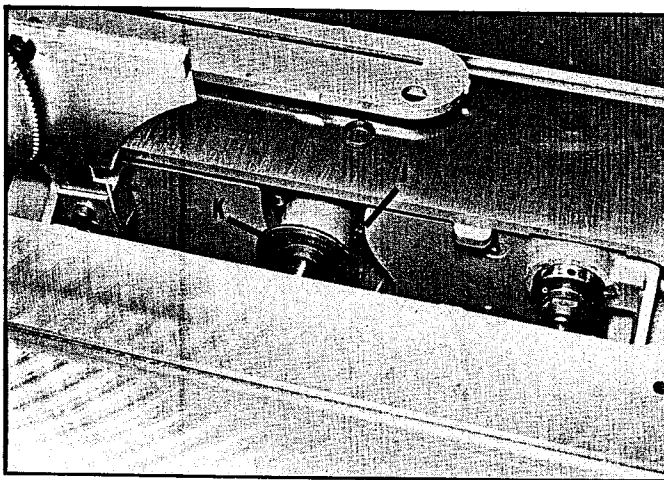


Fig. 15

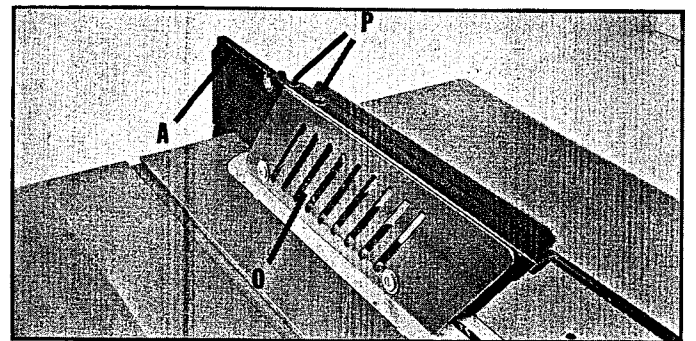


Fig. 17

## CONSTRUCTING UNIFENCE TABLE

If you purchased the RT-31, 10" Panel Scoring Saw without the 34-876 Table, then a table must be constructed. The table should be constructed of  $3/4$ " material (preferably particle board) by following the dimensions shown in Fig. 19.

Locate thirteen  $9/64$ " diameter holes on the bottom of the table, as shown in Fig. 19. Drill thirteen  $9/64$ " diameter holes,  $5/8$ " deep. Locate three undercuts on the bottom of the left end of the table, as shown in Fig. 19. Make these undercuts to the dimensions shown in detail, Fig. 18.

**IMPORTANT:** For maximum ease when sliding the Unifence across the table, it is recommended that the top of the table be covered with a veneer.

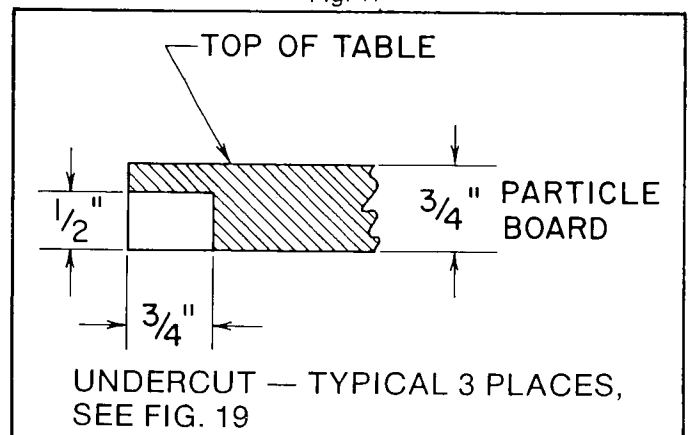


Fig. 18

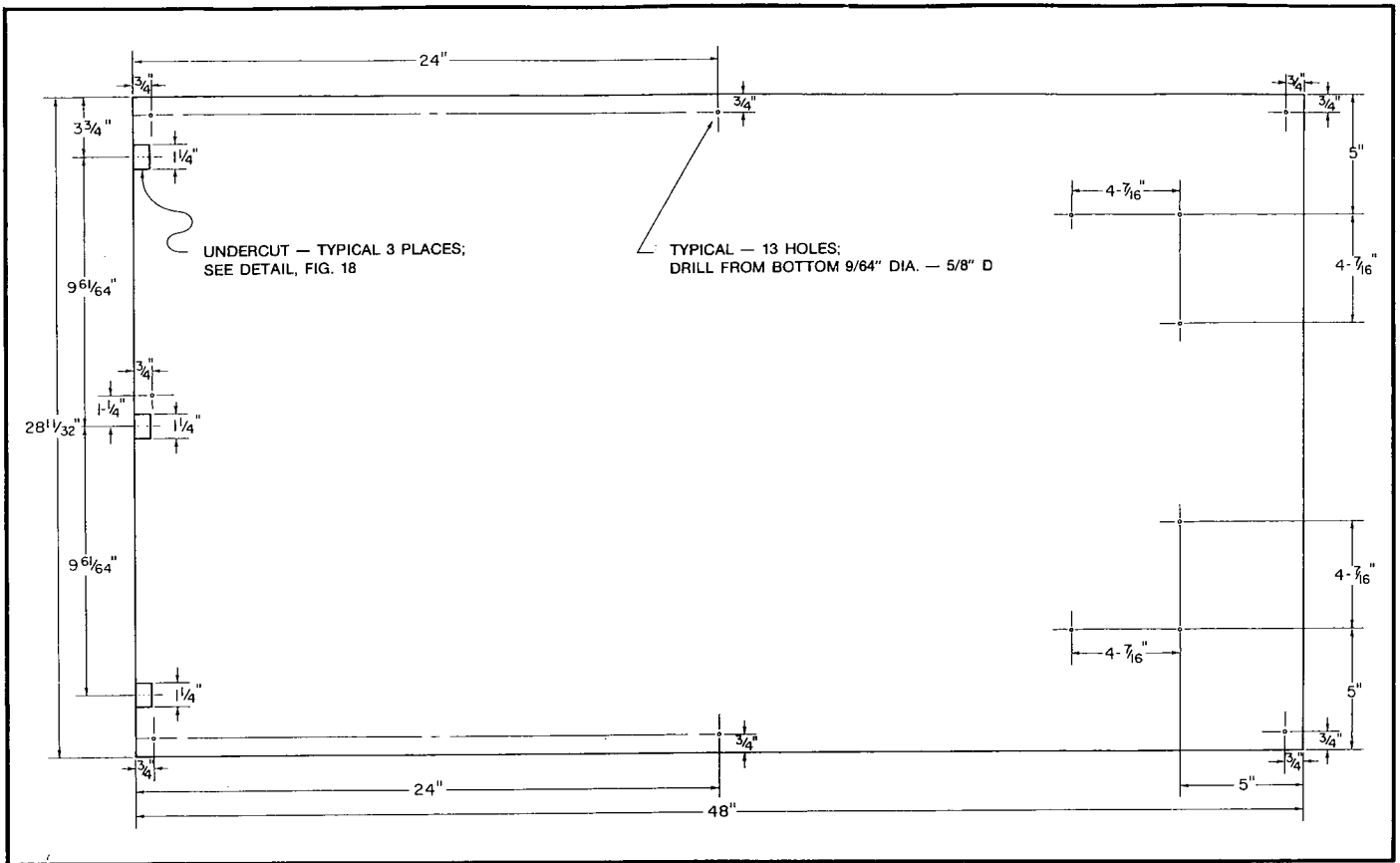


FIG. 19

## ASSEMBLING UNIFENCE TABLE AND GUIDE RAIL TO THE SAW

1. Lay the table upside down on a bench or the floor, as shown in Fig. 20
2. Assemble the two legs (A) to the table, as shown in Fig. 20, using six #14 x 3/4" washer face screws supplied. NOTE: overtightening of all screws in particle board may cause them to strip.
3. Fasten the rear table support (B) and front table support (C) Fig. 21, to the bottom of the table, as shown, using four #14 x 3/4" washer face screws (D) supplied. NOTE: The slotted holes closest to the bend in the table supports (B) and (C) should be against the table. Screws (D) for rear table support (B) should be run in tight. Do not completely tighten screws (D) on front table support (C).

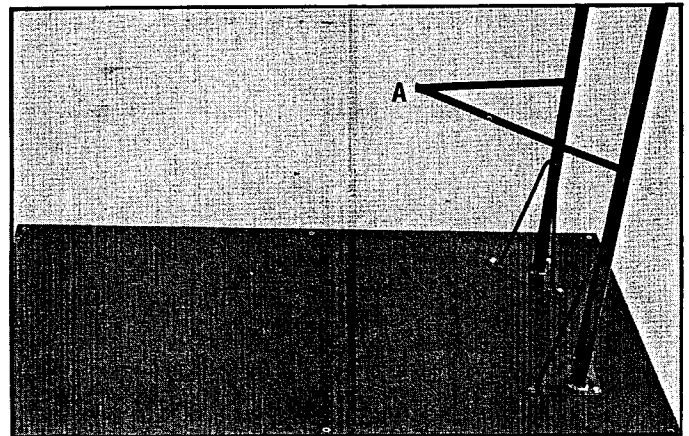


Fig. 20

4. Assemble the adaptor plate (F) Fig. 22 supplied with the RT-31, to the right side of the saw table, as shown, using three M10 x 18mm hex head screws (G) and 10mm flat washers supplied. Before tightening screws (G) make sure top of adaptor plate (F) is flush with or slightly below surface of saw table. Also, be certain that the front edge of the adaptor plate (F) does not extend beyond the front of the saw table.

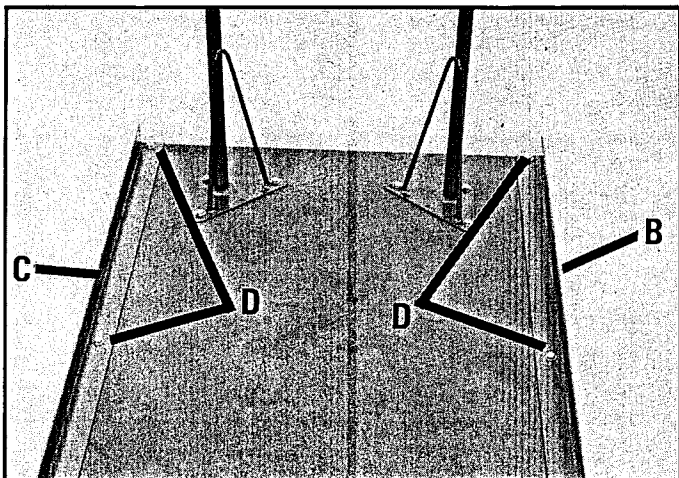


Fig. 21

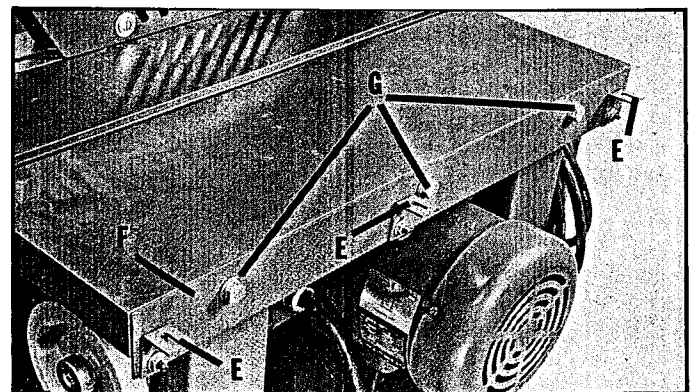


Fig. 22

5. Assemble the three brackets (E) to the adaptor plate (F), as shown in Fig. 22, using three 1/4-20 x 3/4" carriage bolts, washers and nuts supplied. NOTE: The long leg of the brackets (E) should be against the adaptor plate (F) as shown. Do not completely tighten brackets (E) to adaptor plate (F) at this time.

6. Assemble the table (J) to the three table brackets (E) Fig. 23, using three #14 x 3/4" washer face screws (K) and (L) Fig. 24. NOTE: The two screws (K) Fig. 24, should be run in tight. Do not fully tighten screw (L).

7. Using a straight edge, make certain the table surface (M) Fig. 25, is even with the saw table (N). IMPORTANT: Front edge of table (M) must be flush with or slightly behind front edge of saw table (N). Tighten three nuts (H) Fig. 24.

8. With the straight edge across the saw table (N) and the Unifence table (M), as shown in Fig. 25, adjust the two leveling screws (P) so that the Unifence table (M) is level with saw table (N)

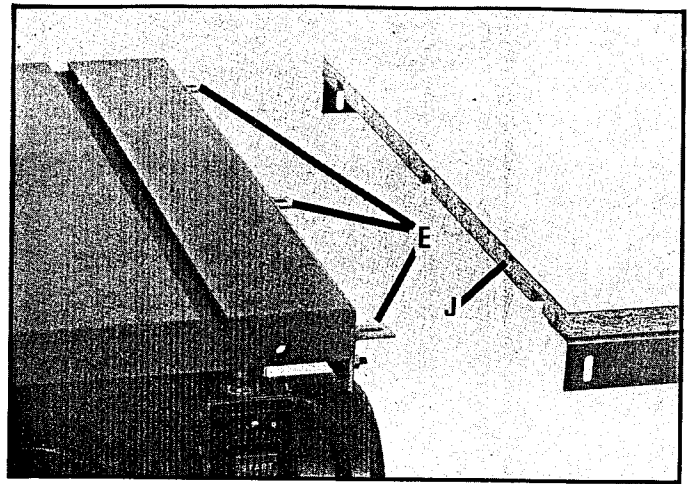


Fig. 23

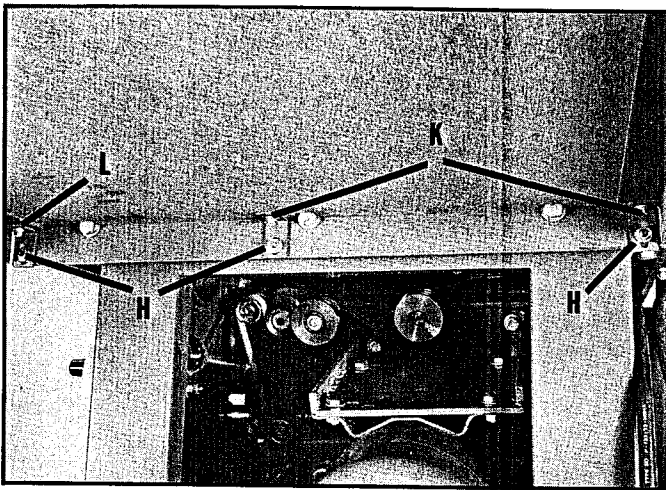


Fig. 24

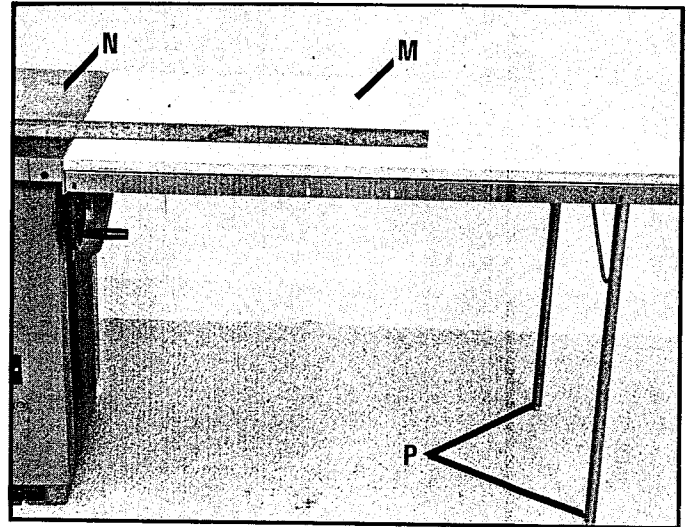


Fig. 25

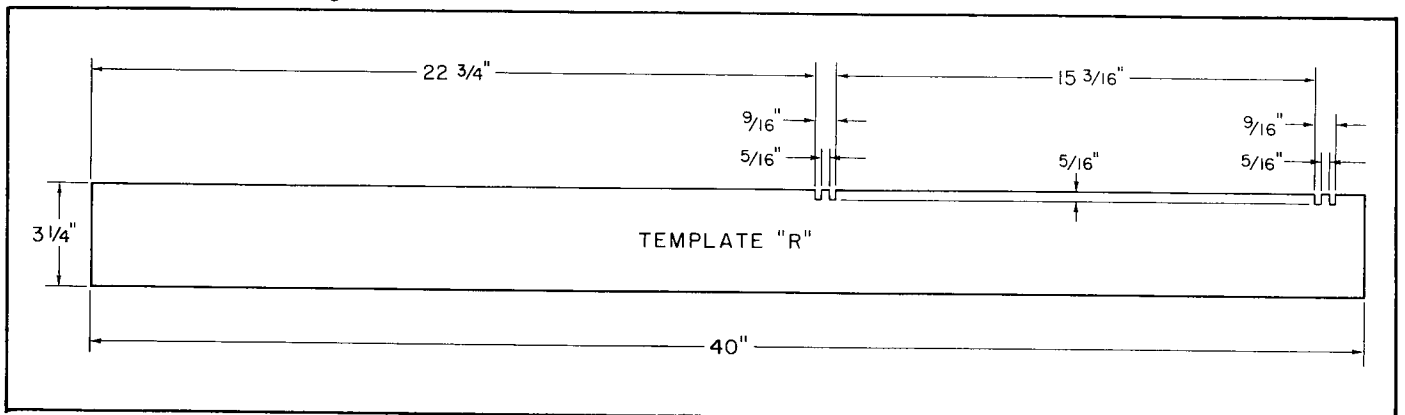


Fig. 26

9. Make a template (R) according to the dimensions, shown in Fig. 26, using a piece of cardboard from the packing material.

10. Place the two 3/8" - 24 hex nuts (Q) in position on the two tabs on the cardboard template (R) as shown in Fig. 27.

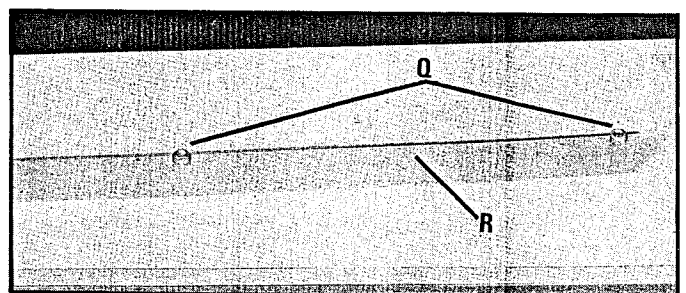


Fig. 27



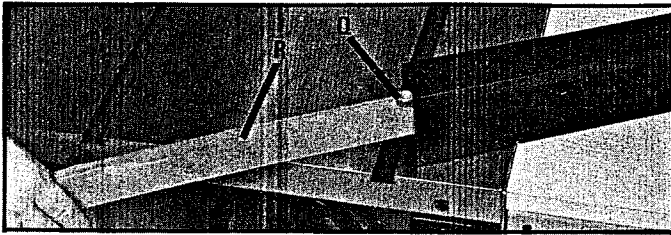


Fig. 28

11. Insert cardboard template (R) into channel in end of guide rail, as shown in Fig. 28, until the two nuts one of which is shown at (Q), line up with the second and fourth holes in the guide rail.

12. The short fine threads of studs (S) are to be threaded into the two hex nuts inside the channel of the guide rail, as shown in Fig. 29.

13. Assemble the guide rail (T) Fig. 30, to the saw table by inserting the two studs (S) into the two holes (U) on front of the saw table and fasten guide rail in place using the two flat washers and hex nuts (V).

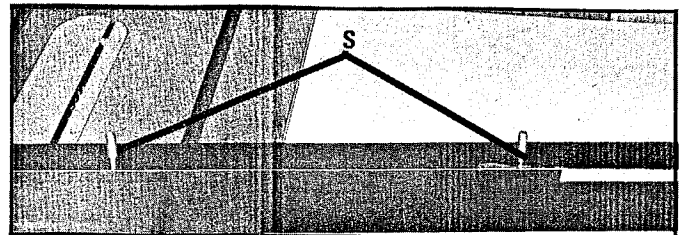


Fig. 29

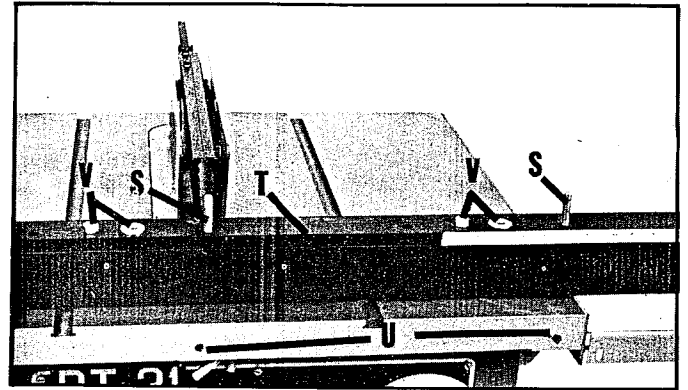


Fig. 30

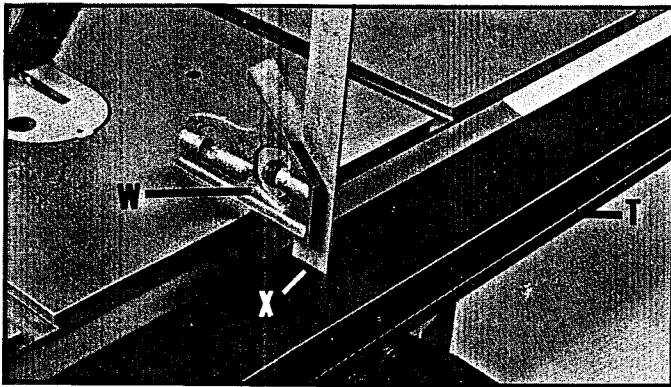


Fig. 31

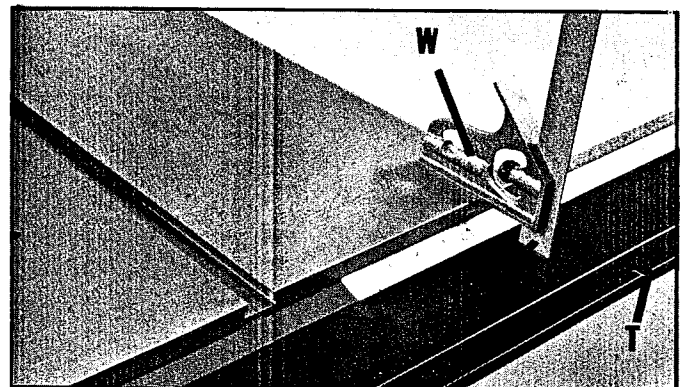


Fig. 32

14. Adjust the guide rail (T) parallel with table surface of the saw by placing a square (W) on the saw table at both the left and right front edge of the table with rule (X) of square against flat surface on top of guide rail, as shown in Figs. 31 and 32. The guide rail (T) can be moved up or down at either end. After you are certain the flat surface of the guide rail is parallel with the table surface, firmly tighten the two nuts that fasten the guide rail to the table.

15. Move front table support (C) Fig. 33, until it contacts back of guide rail (T) and tighten the three screws (D).

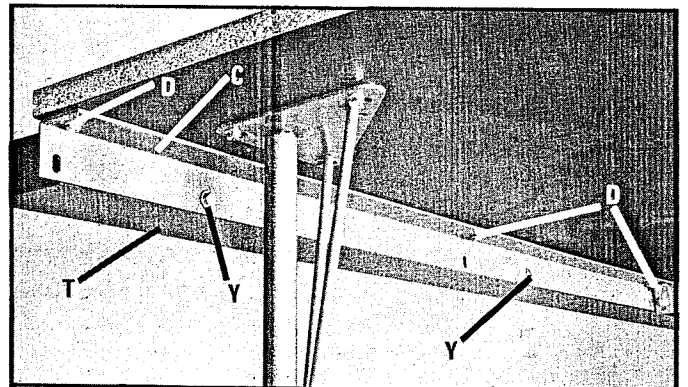


Fig. 33

16. Using the two 1/4-20 x 5/8" screws and 9/32" washers (Y), Fig. 33, fasten the guide rail (T) to the front table support (C), as shown, NOTE: Before tightening two screws (Y) Fig. 33, adjust guide rail (T) Fig. 34, parallel to table surface using an adjustable square (W) in the same manner as Step 14.

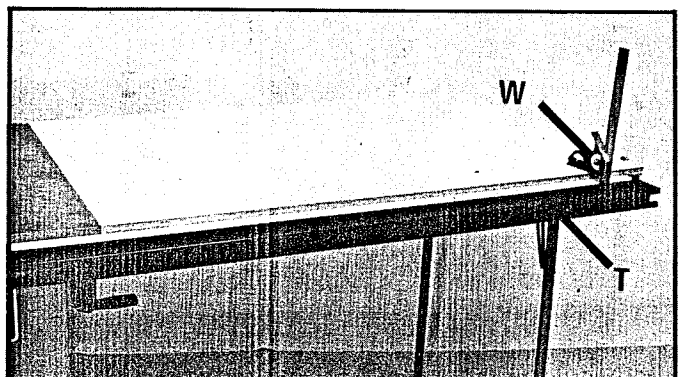


Fig. 34

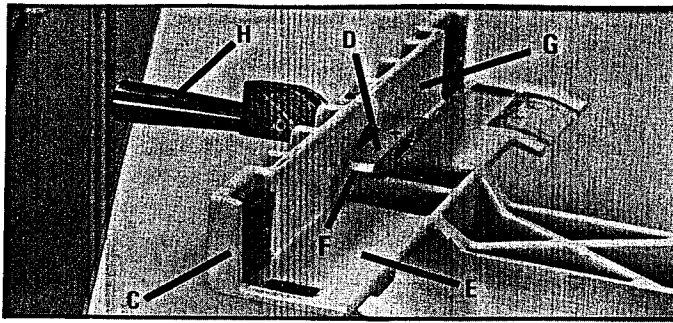


Fig. 35

## ASSEMBLING UNIFENCE TO GUIDE RAIL

1. Turn fence body (C) Fig. 35, upside down and lay it on a table or bench. Push handle (H) in against fence body. Before assembling fence body to guide rail make sure that the surface (D) of the clamp bracket is parallel to the face (E) of the fence body and that the inside edge (F) of the clamp bracket is parallel to the surface (G) of the fence body. Turn handle (H) Fig. 35, if necessary.

2. Place fence body (C) Fig. 36, onto the guide rail, making sure clamp bracket is inserted into slot (J) on rail. Then turn handle (H) to the right, which will prevent the fence body from sliding out of the guide rail.

3. Lock the fence body (C) to the guide rail by pushing down on the handle (H) as shown in Fig. 37.

4. Insert the two studs (K) Fig. 38, of fence clamping plate into the two holes (L) located on the side of the fence body (C). Assemble the two washers (B) and lock knobs (A) onto the two studs (K). Do not completely tighten lock knobs (A) as plate (N) must be loose when assembling fence.

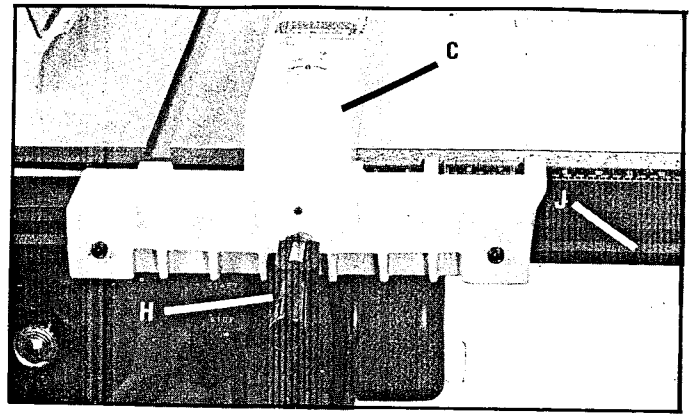


Fig. 36

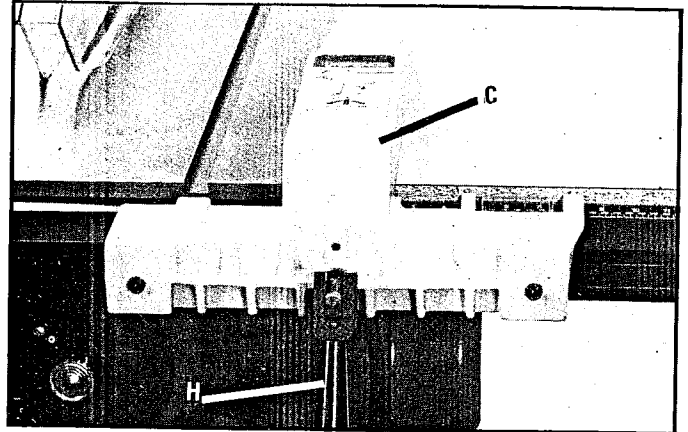


Fig. 37

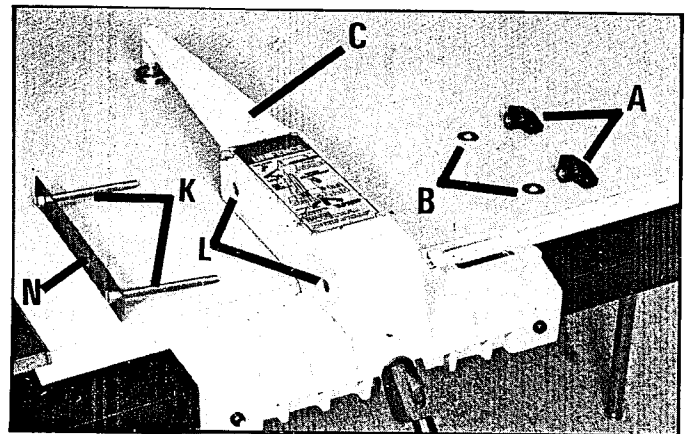


Fig. 38

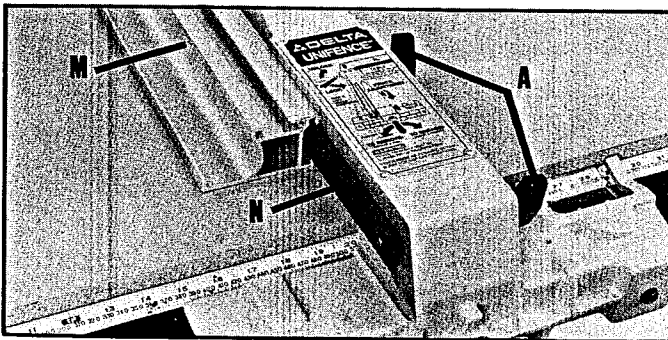


Fig. 39

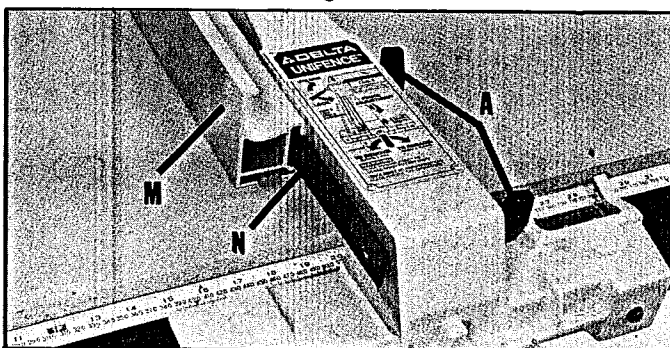


Fig. 40

5. The fence (M) can be assembled to the clamp plate (N) in either the horizontal position as shown in Fig. 39, or the vertical position as shown in Fig. 40. Make sure the two lock knobs (A) are loose and slide the fence (M) onto the clamp plate (N) as shown in Fig. 39, and Fig. 40.

6. For most normal ripping operations the bottom of the fence should be positioned slightly above the table surface. Place a thin material, such as a wood ruler (S) between the table and fence, as shown in Fig. 41, and tighten the two lock knobs (A).

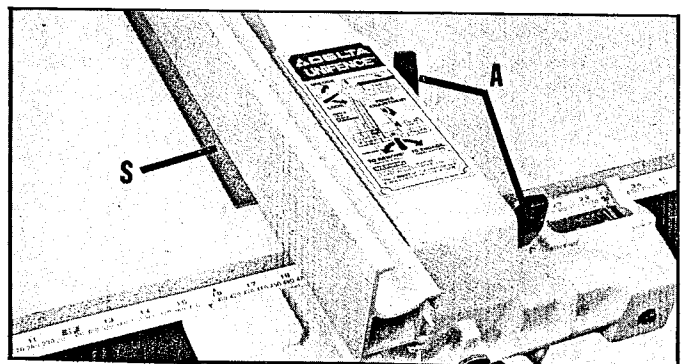


Fig. 41

## ASSEMBLING STOP ROD ASS'Y TO MITER GAGE

Assemble stop rod assembly (A) into hole in the side of the miter gage body (B), as shown in Fig. 42, and tighten clamp knob (C).

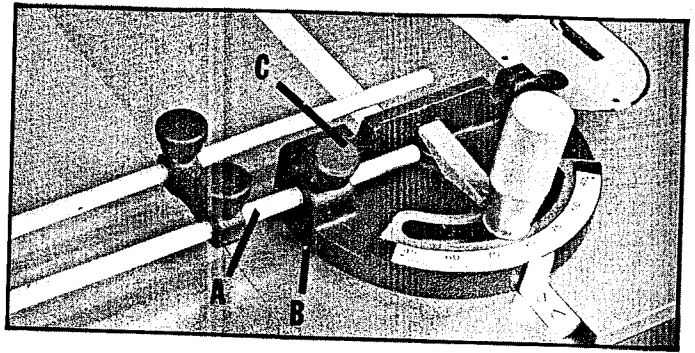


Fig. 42

## SAW BLADE RAISING AND TILTING MECHANISMS

To raise or lower the saw blade, loosen lock knob (A) Fig. 43, and turn handwheel (B). When the saw blade is at the desired height, tighten lock knob (A).

To tilt the saw blade, loosen lock knob (C) Fig. 43, and turn handwheel (D). The saw blade can be tilted up to 45 degrees to the right. When the saw blade is at the desired angle, tighten lock knob (C).

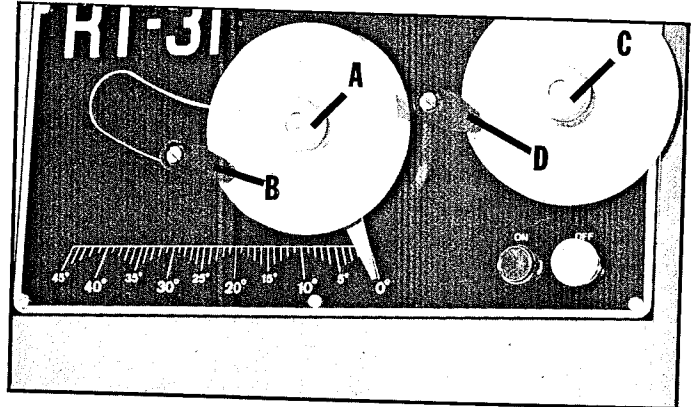


Fig. 43

## ADJUSTING 90 DEGREE AND 45 DEGREE POSITIVE STOPS

Factory set positive stops are provided to ensure that the blade can be set at 90° or 45° to the table. To check and adjust, proceed as follows:

1. Disconnect the machine from the power source and remove blade guard.
2. Set the blade at 90° to the table by turning the blade tilting handwheel counterclockwise as far as it will go. Place a square on the table with one end against the blade, as shown in Fig. 44, and check to see if the blade is exactly 90° to the table.
3. If an adjustment is necessary, turn blade tilting handle clockwise enough to allow you to locate nut (A) Fig. 45, through the right hand side of the machine, and loosen nut (A). NOTE: The table has been removed for clarity in Fig. 45. Then loosen screw (B) Fig. 44. Turn blade tilting handle counterclockwise until the blade is perfectly set at 90° to the table and lock it in place. Tighten screw (B) Fig. 44 until it bottoms and tighten nut (A) Fig. 45.
4. The 45° positive stop can be checked and adjusted in the same manner by means of the set screw (C) Fig. 46, after the nut (D) Fig. 45, is loosened. Access to nut (D) Fig. 45, can be made through the front end of the table insert opening.
5. After adjustments are completed, replace blade guard.

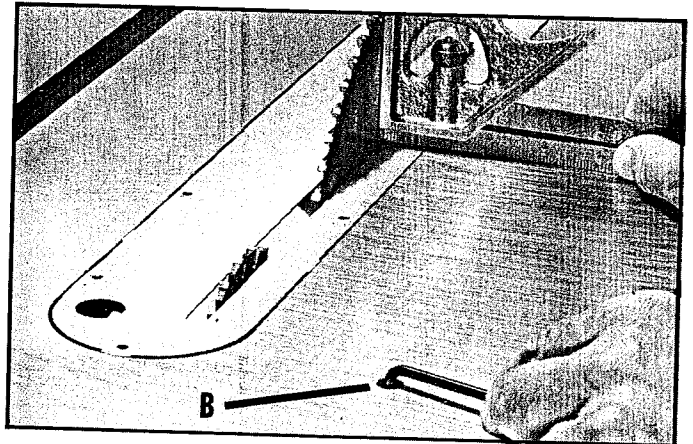


Fig. 44

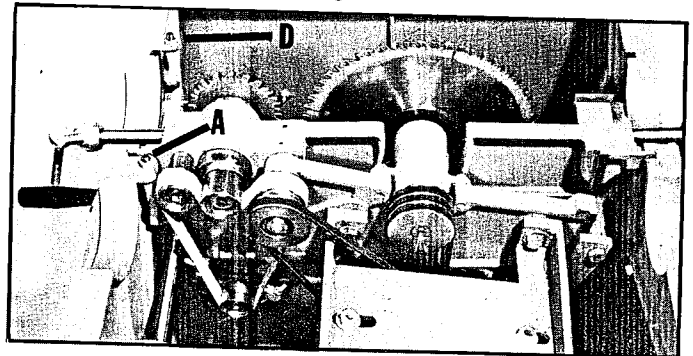


Fig. 45

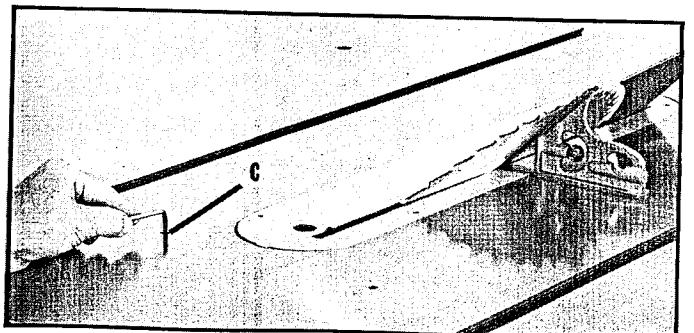


Fig. 46

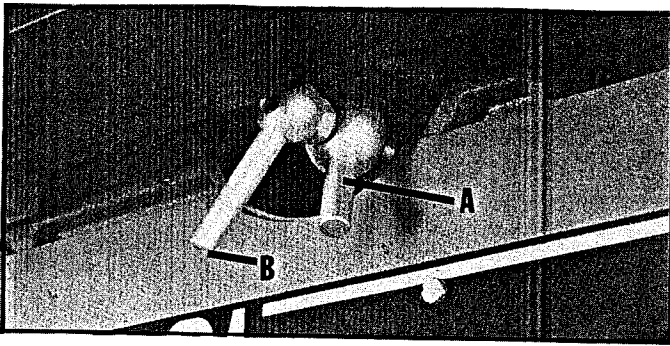


Fig. 47

## ADJUSTING SCORING BLADE

The scoring blade must always be in alignment with the saw blade. To adjust the scoring blade right or left, loosen clamp lever (A) Fig. 47. Turn lever (B) to the left to shift scoring blade right. Turn lever (B) to the right to shift scoring blade left. When scoring blade is aligned with saw blade, tighten clamp lever (A) Fig. 47.

The scoring blade can be raised or lowered by loosening clamp lever (A) Fig. 47, and inserting rod (C) in arbor eccentric (D) Fig. 48. Rotate arbor eccentric (D) Fig. 48, using rod (C), until the scoring blade is at the desired height. Tighten clamp lever (A) Fig. 47.

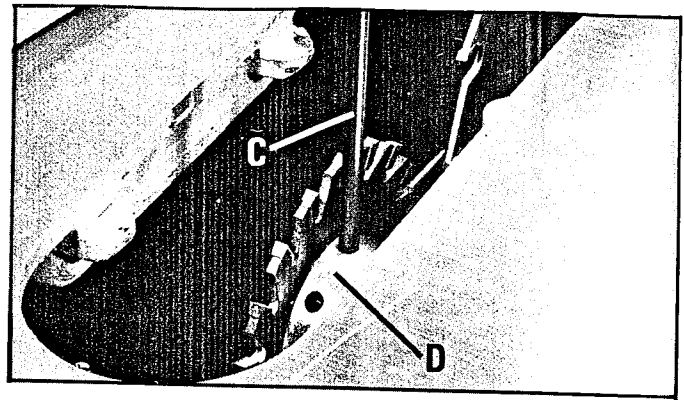


Fig. 48

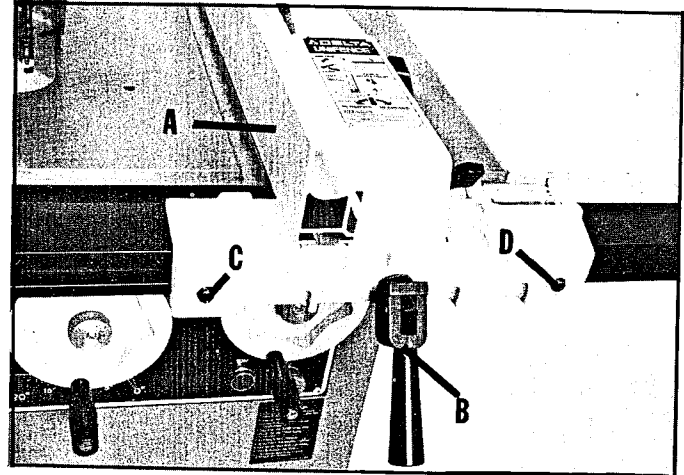


Fig. 49

## ADJUSTING FENCE PARALLEL TO MITER GAGE SLOTS

The fence (A) Fig. 49, should be adjusted so it is parallel to the miter gage slots. To check and adjust, move the fence until the bottom front edge of the fence is in line with the edge of the miter gage slot, and push down on fence clamping lever (B). Check to see if the fence is parallel to the miter gage slot the complete length of the table. If the rear of the fence must be moved to the left, slightly tighten screw (C). If the rear of the fence must be moved to the right, slightly tighten screw (D). **IMPORTANT: DO NOT OVERTIGHTEN SCREWS (C) AND (D) FIG. 49. VERY LITTLE MOVEMENT OF THESE SCREWS IS NECESSARY WHEN ADJUSTING THE FENCE PARALLEL WITH THE MITER GAGE SLOT.**

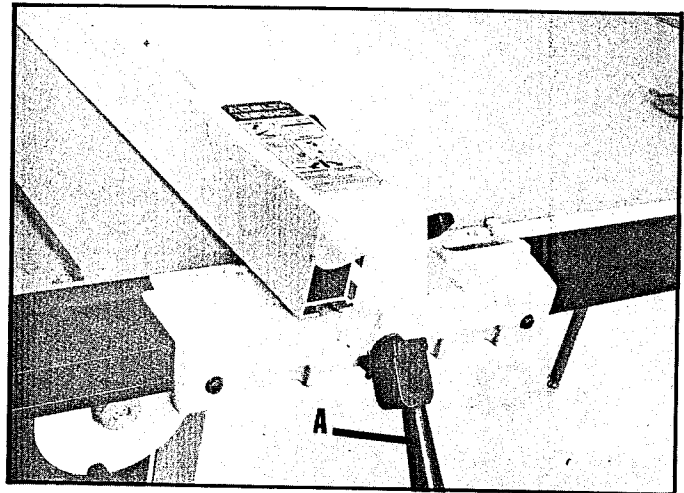


Fig. 50

## ADJUSTING CLAMPING ACTION OF FENCE LOCKING HANDLE

When the fence locking handle (A) is pushed to the down position, as shown in Fig. 50, the fence body should be completely clamped to the guide rail. If the fence body is not completely clamped to the guide rail when the lever is in the position shown in Fig. 50, lift up on locking handle (A) Fig. 51, and slightly tighten two screws (B). Screws (B) should be tightened an equal amount. Check to see if the fence body is completely fastened to the rail by pushing down on locking lever (A). Adjust further if necessary. **IMPORTANT: AFTER ADJUSTING THE CLAMPING ACTION OF THE FENCE LOCKING HANDLE, CHECK TO SEE IF THE FENCE IS PARALLEL TO THE MITER GAGE SLOT AND ADJUST IF NECESSARY.**

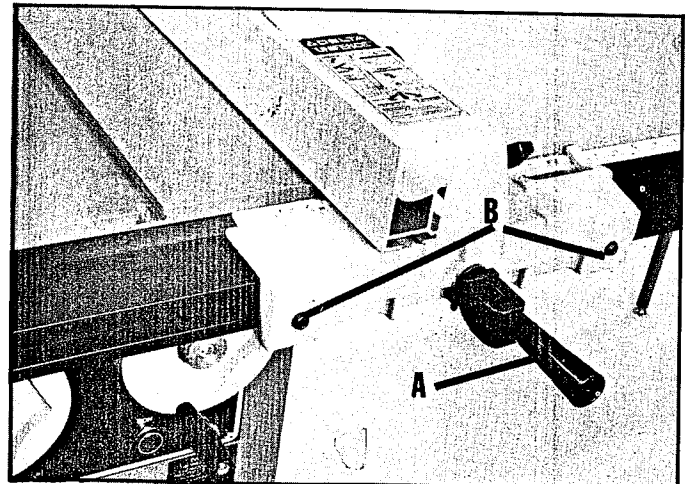


Fig. 51

# ADJUSTING MITER GAGE AND STOP RODS

1. The miter gage body (B) Fig. 52 can be adjusted up to 45° right and left by loosening lock knob (D) and depressing lever (E).

2. The stop rods can be adjusted by loosening lock knobs(C).

3. Positive stops are provided on the miter gage at the 90 and 45 degree right and left positions. To adjust the gage to a 45° angle, right or left, hold a square at a 45° angle against the bar and body (B) Fig. 54. After the amount of adjustment has been determined, remove the gage from the table with the base facing up, as shown in Fig. 55. Loosen lock screw (A) with allen wrench and turn adjusting hex head screw, located on the inside of the miter gage body directly in back of set screw (A) Fig. 55. After the hex head stop screw is adjusted correctly, tighten screw (A). The other 45° positive stop can be adjusted in the same manner.

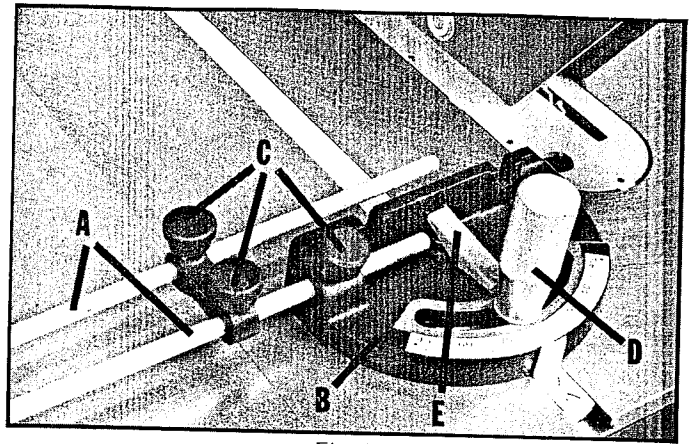


Fig. 52

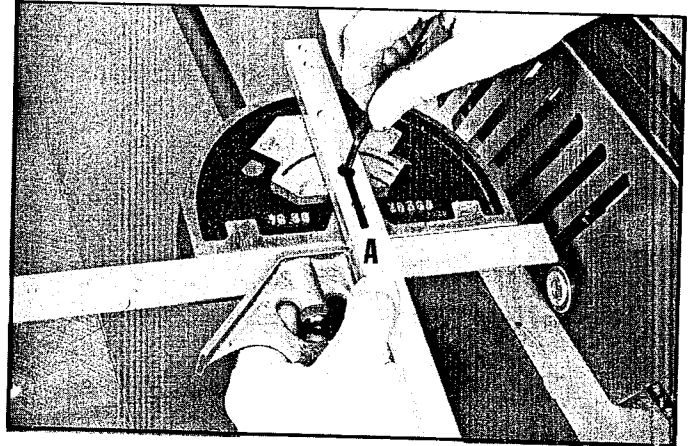


Fig. 53

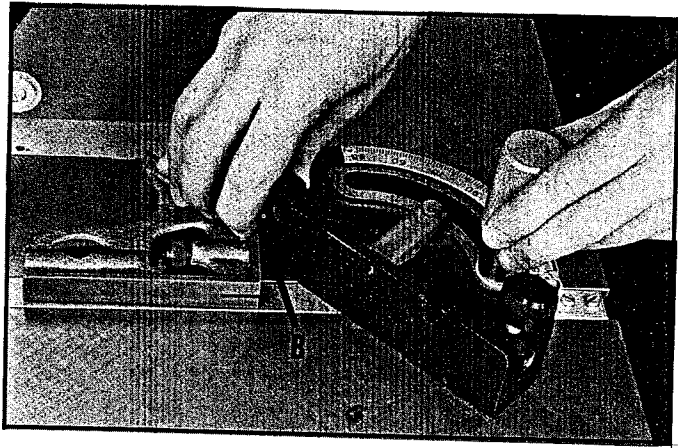


Fig. 54

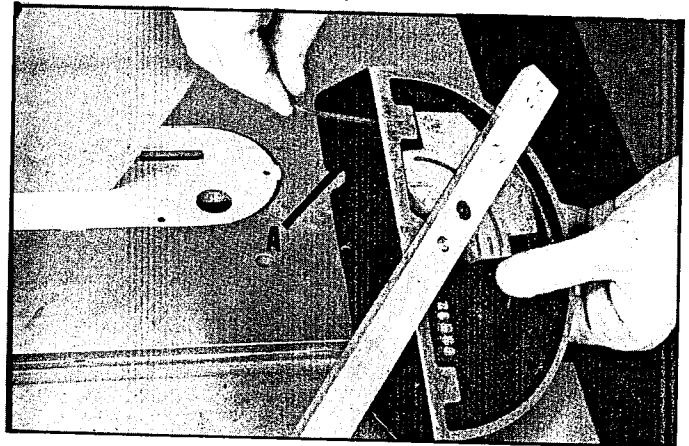


Fig. 55

# ADJUSTING V-BELT TENSION

1. To adjust V-belt tension, position the saw blade at a 45° cutting angle. Loosen bolts (A) and (B) Fig. 56. Press lightly on bracket (C) until belts are properly tensioned, and tighten bolts (B) and (A)

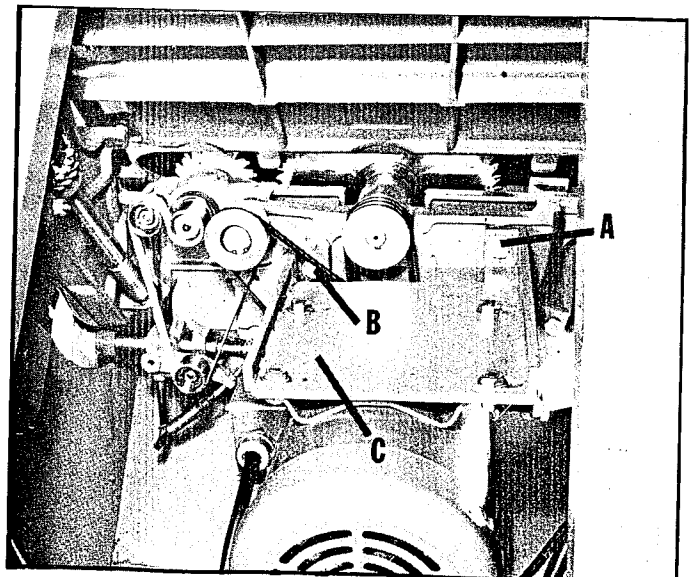


Fig. 56

## ADJUSTING TENSION ON SCORING DRIVE BELT

To increase or decrease tension on the scoring drive belt, tighten or loosen nut (A) Fig. 57.

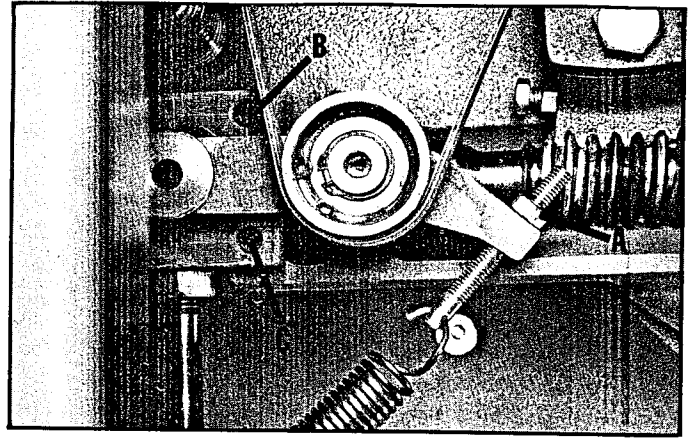


Fig. 57

## SCORING BELT TRACKING

1. The scoring belts should track in the center of the four pulleys. If adjustment is necessary, loosen set screw (A) Fig. 58.

2. Tracking adjustments can be made (refer to Fig. 57), by loosening set screw (B) and tightening set screw (C); or loosening set screw (C) and tightening set screw (B). Once proper belt tracking is obtained, retighten set screw (A) Fig. 58.

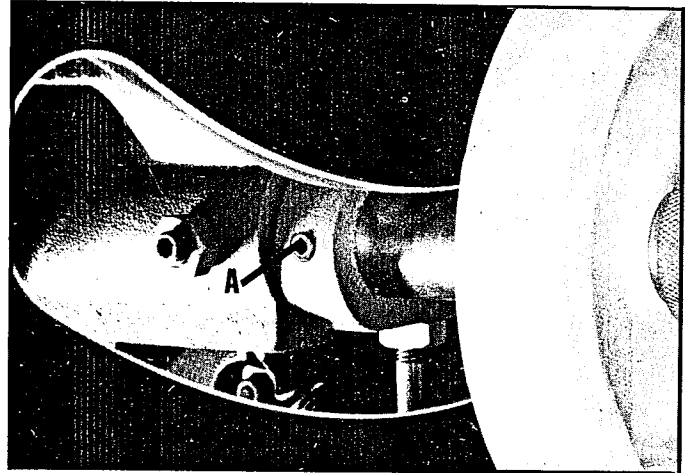


Fig. 58

## ELEVATING AND BEVEL SHAFT END PLAY ADJUSTMENT

1. After extensive use, end play in the elevating shaft could develop. This end play can be removed by loosening lock nut (A) Fig. 59 and tightening screw (B). Retighten lock nut (A) after adjustment has been made.

2. End play in the bevel shaft can be removed by loosening nut (A) Fig. 60 and tightening screw (B). Retighten nut (A) after adjustment has been made.

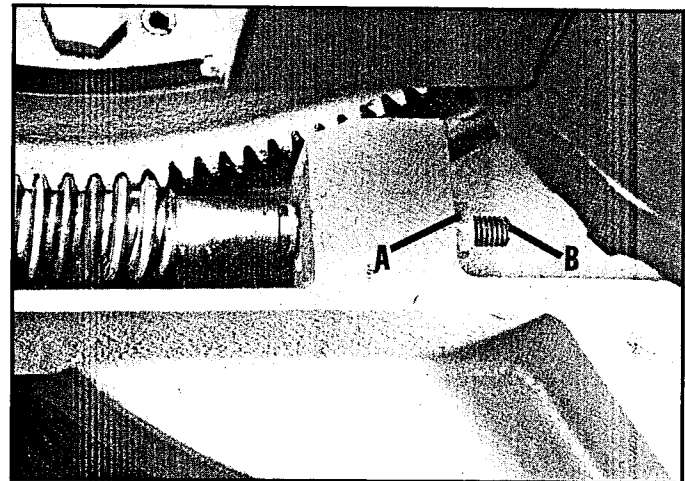


Fig. 59

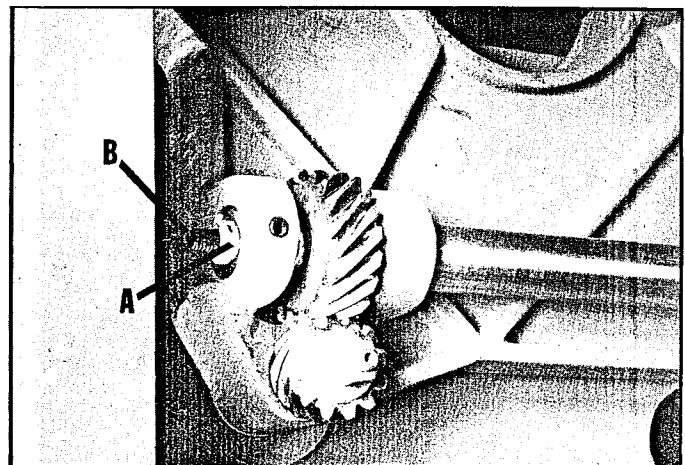


Fig. 60

## UPPER AND LOWER BLADE STOP ADJUSTMENT

1. To adjust the upper blade stop, loosen nut (A) Fig. 61 and turn screw (B). NOTE: The correct adjustment with a 10" blade is that the blade should be 3-1/8" above the table surface when the blade is all the way to the top.

2. To adjust the lower blade stop, loosen nut (C) and turn screw (D) Fig. 61. The correct adjustment is when a 10" blade is just below the table surface when the blade is all the way to the bottom.

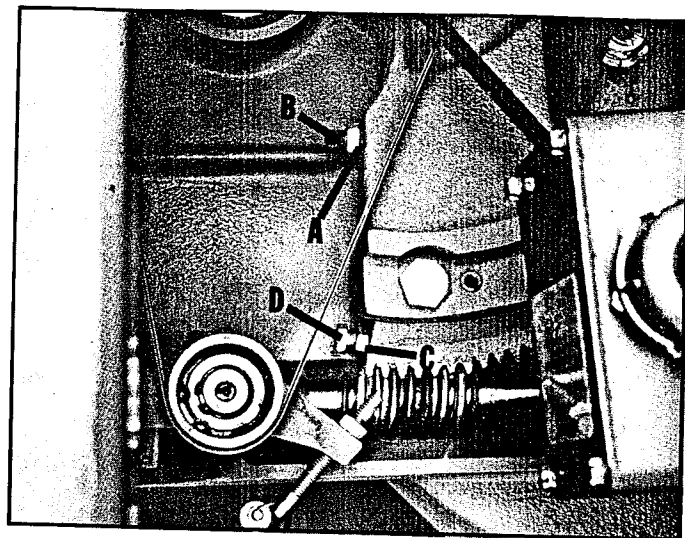


Fig. 61

## CHIP EXHAUST CHUTE

The lower half of the saw blade is completely covered with a large chip exhaust chute (A) Fig. 62. The exhaust chute moves with the saw arbor when the blade is tilted. The diameter of the opening of the exhaust chute is 3" O.D. and may be attached to a central dust collection system.

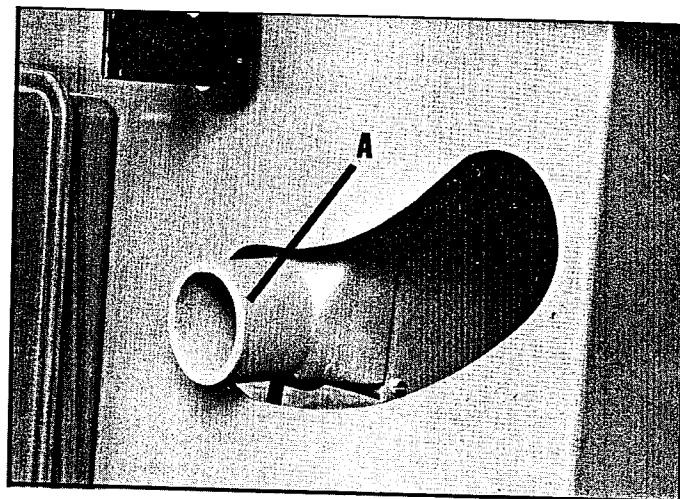


Fig. 62

## START/STOP SWITCH

The start/stop switch is located on the front of the machine for easy accessibility. To start the machine, press the smaller green button (A) Fig. 63. To stop the machine press the larger red stop button (B).

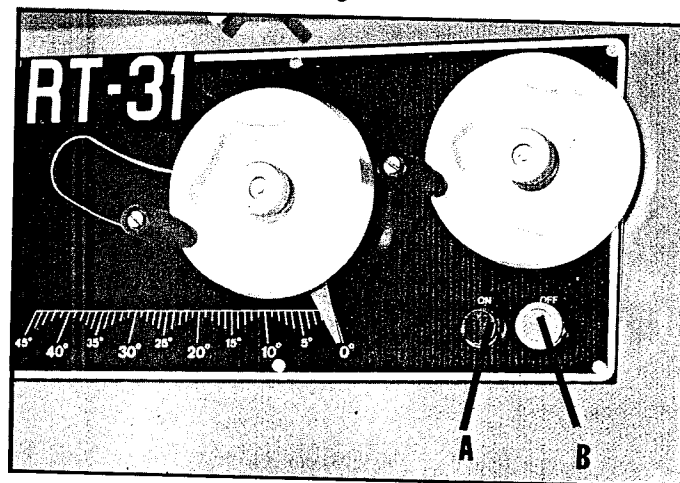


Fig. 63

## OVERLOAD PROTECTION

The RT-31 Saw is provided with overload protection which will shut off the motor if the saw is overloaded or if line voltage falls below safe levels. If the motor shuts off due to overloading or low voltage, let the motor cool for approximately five minutes. The overload block supplied with this saw will automatically reset itself and the machine can be started again by pushing the start button.

If the machine continually shuts off due to overloading, the cause of overloading must be corrected. If this happens, it is recommended you obtain advice from a qualified electrician.

## UNIFENCE OPERATION

Before operating, make certain the fence is adjusted parallel to the miter gage slot, as explained on page 12.

For most normal ripping operations of standard size lumber the fence is used in the vertical position, as shown in Fig. 64.

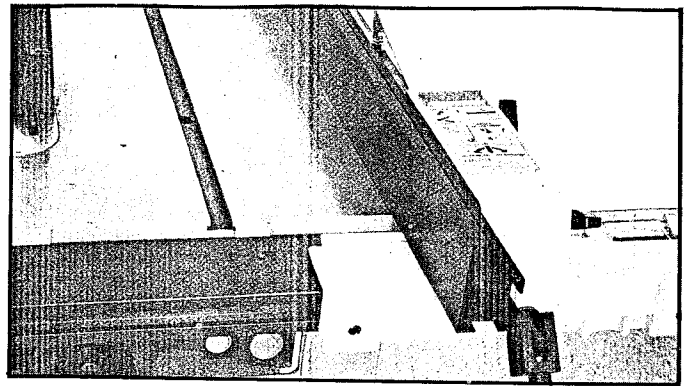


Fig. 64

When ripping thin stock, it is sometimes more convenient to use the fence in the horizontal position, as shown in Fig. 65.

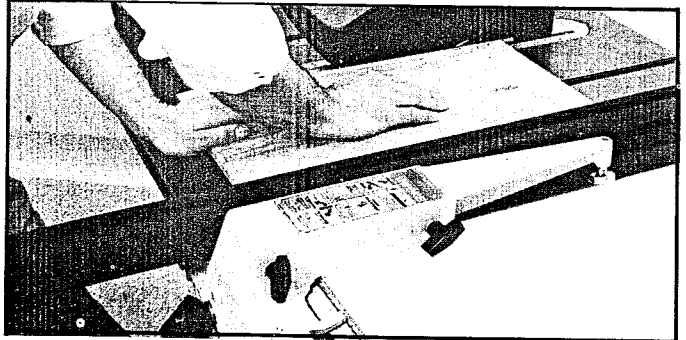


Fig. 65

When ripping materials with a veneer facing that extends over the material, the fence should be in the horizontal position with the veneer extending over the lip of the fence, as shown in Fig. 66.

When ripping materials with a veneer facing and the material is not thick enough for the veneer to extend over the lip of the fence, as shown in Fig. 66, the fence can be positioned slightly above the surface of the table and the veneer can be placed between the fence and the table with the material against the fence.

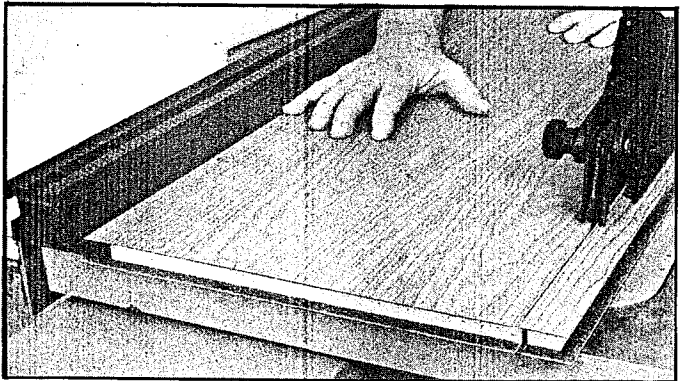


Fig. 66

To move the fence along the guide rail, lift up clamp lever (A), as shown in Fig. 67, slide fence to the desired position on the rail, and push down on clamp lever (A) to lock fence in place.

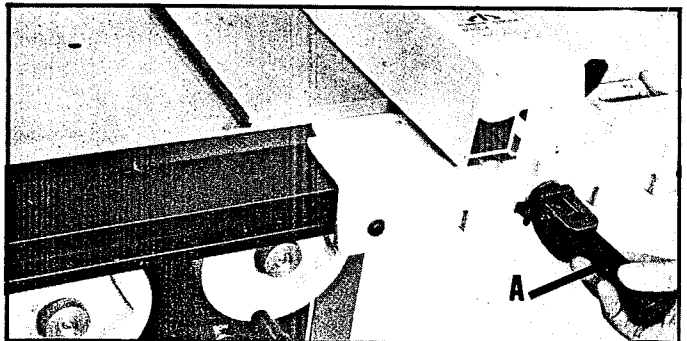


Fig. 67

The distance the fence is positioned away from the blade is indicated by the two witness lines (A) and (B) Fig. 68, located on the cursor (D). Witness line (A) indicates the distance the fence is away from the blade when the fence is in the horizontal position and witness line (B) indicates the distance the fence is away from the blade when the fence is in the vertical position. If it is necessary to adjust cursor (D), make a test cut with the fence in either the vertical or horizontal position, measure the distance of the finished cut and move the cursor (D) by loosening the two screws (C) Fig. 68.

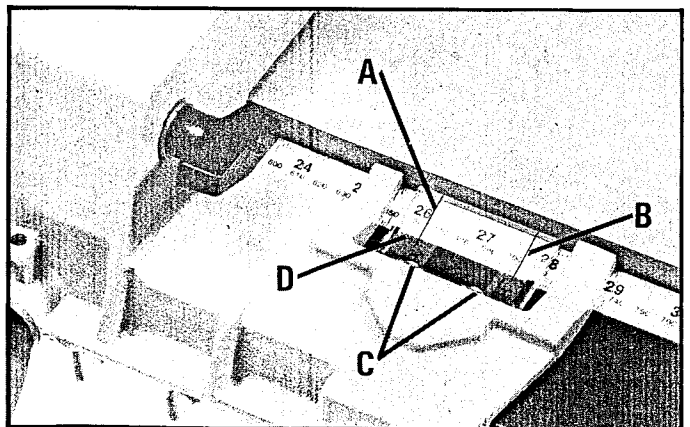


Fig. 68



To remove the fence and fence body assembly (D) Fig. 69, from the guide rail, lift up on fence clamping lever (E) and turn lever (E) to the left indent position. The fence assembly (D) can then be pulled straight off the guide rail and removed, as shown in Fig. 69.

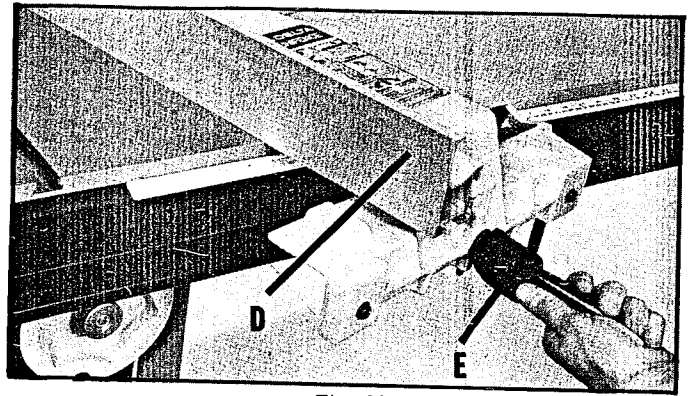


Fig. 69

## RIPPING ON LEFT SIDE OF SAW BLADE

In some cases it may be desirable to use the fence on the left side of the saw blade. This is easily accomplished by repositioning the fence, fence clamp bar and lock knobs so that the fence is attached to the right side of the fence body, as shown in Fig. 70.

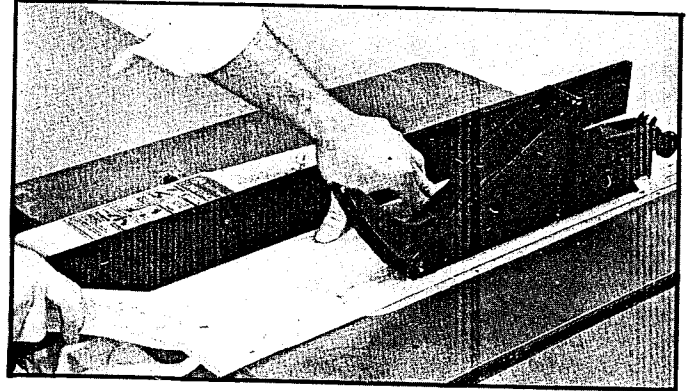


Fig. 70

## USING THE UNIFENCE AS A CUT-OFF GAGE

The fence can be used as a cut-off gage when crosscutting a number of pieces to the same length. **IMPORTANT:** When using the fence as a cut-off gage, position the fence to the front, as shown in Fig. 71, or purchase the accessory 34-883, 12" long fence, as shown in Fig. 72.

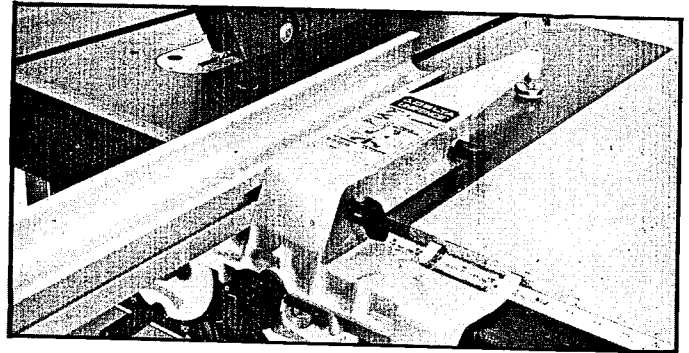


Fig. 71

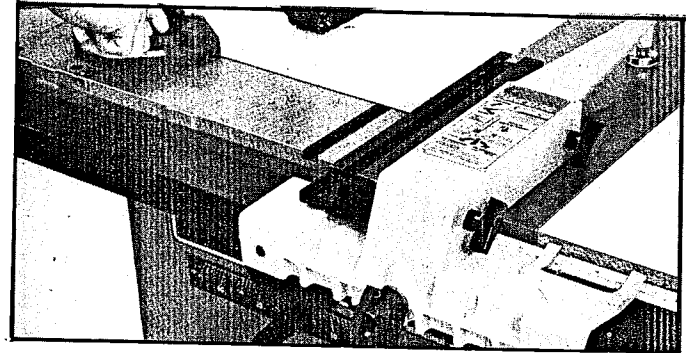


Fig. 72

## MITER GAGE AND ADJUSTABLE STOP ROD OPERATION

The miter gage is used to support the material being cut when performing crosscut operations. The material should be held firmly against the body of the miter gage (A) as shown in Fig. 73. The miter gage and the material are pushed all the way through the cut and clear of the blade.

For repetitive work, the adjustable stop rod assembly (B) Fig. 73, can be set to the desired length of work

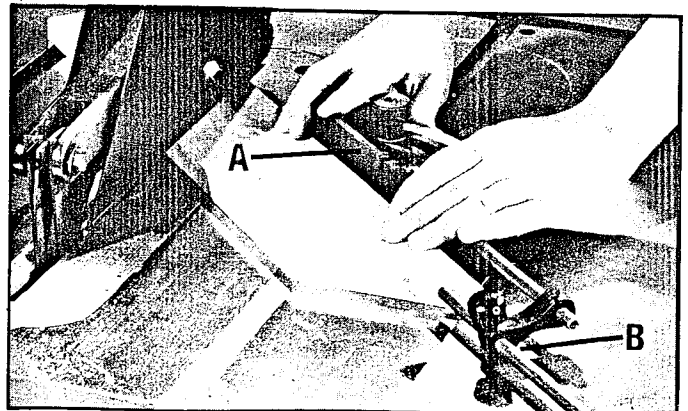


Fig. 73

## ASSEMBLING MITER GAGE SUPPORT EXTENSION

A miter gage support extension (A) Fig. 74, is supplied with your RT-31 10" Panel Scoring Saw for increasing the distance in front of the saw table to support the miter gage when cross-cutting large workpieces. To assemble the support extension, proceed as follows:

1. Insert clamp (B) Fig. 74, into groove (C) of guide rail.
2. Fasten extension (A) Fig. 74, to bracket (D) using the two 30mm hex socket head cap screws (F)

3. Assemble extension (A) and bracket (D) to the guide rail by inserting the screw (E) through the centerhole in the bracket (D) and fasten in place using the flat washer (G) and clamp handle (H) Fig. 74.

4. Align the miter gage slot of the extension to the miter gage slot in the table by tightening or loosening the four 16mm socket set screws (J) Fig. 74.

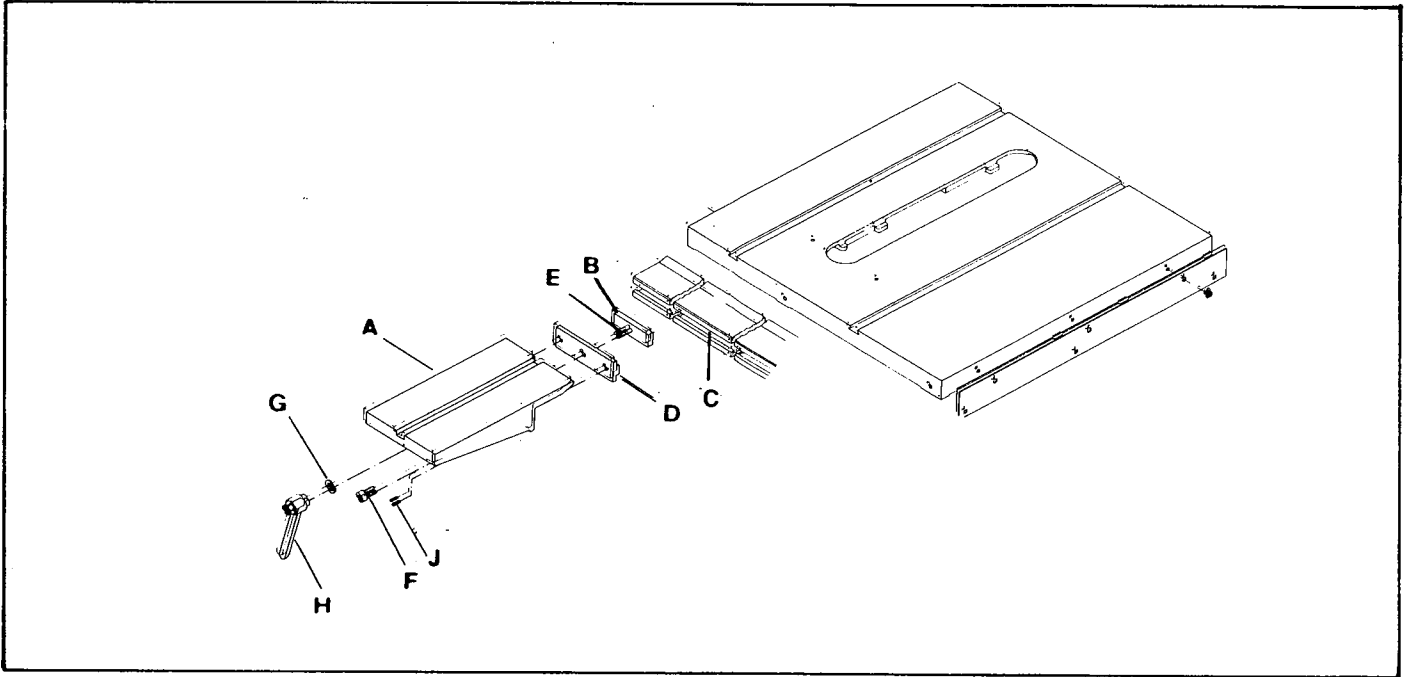


Fig. 74

## ACCESSORY STORAGE

Built into the saw cabinet is a handy tray for storing miscellaneous saw accessories (A), Fig. 75. Miter gage, saw blades and other accessories may be stored on the side of the saw cabinet.

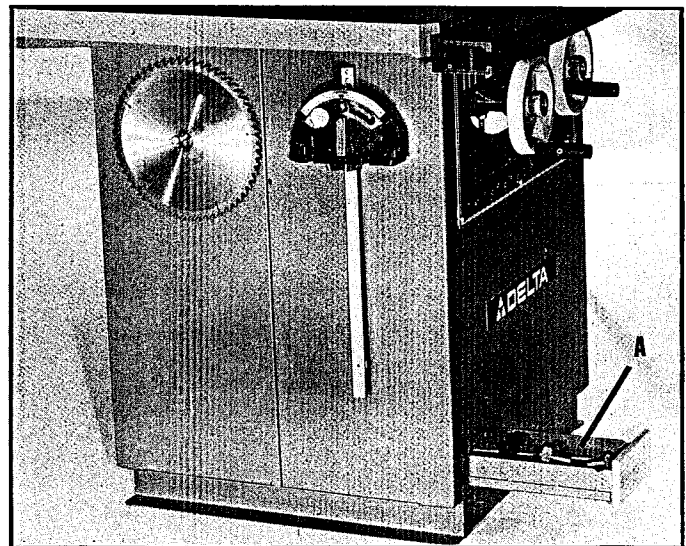


Fig. 75



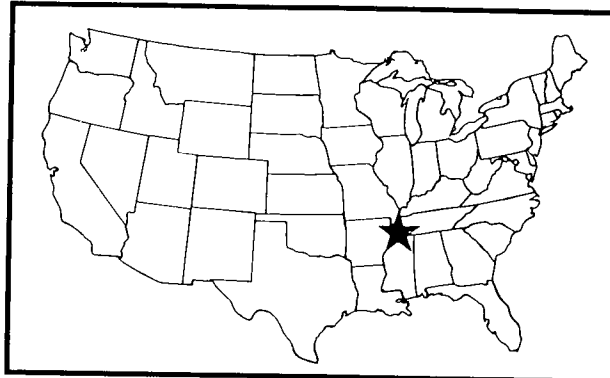
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**Delta Machinery**

Delta will repair or replace, at its expense and at its option, any Delta machine, machine part, or machine accessory which in normal use has proven to be defective in workmanship or material, provided that the customer notifies his supplying distributor of the alleged defect within two years from the date of delivery to him, of the product and provides Delta Machinery with reasonable opportunity to verify the defect by inspection. Delta Machinery may require that electric motors be returned prepaid to the supplying distributor or authorized service center for inspection and repair or replacement. Delta Machinery will not be responsible for any asserted defect which has resulted from misuse, abuse or repair or alteration made or specifically authorized by anyone other than an authorized Delta service facility or representative. Under no circumstances will Delta Machinery be liable for incidental or consequential damages resulting from defective products. This warranty is Delta Machinery's sole warranty and sets forth the customer's exclusive remedy, with respect to defective products; all other warranties, express or implied, whether of merchantability, fitness for purpose, or otherwise, are expressly disclaimed by Delta.



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## DADO CUTTING WITH THE RT-31 10" PANEL SAW

On some earlier models of RT-31 10" Panel Scoring Saws, it is necessary to modify the side plate cover to allow the use of dado blades.

To modify the side plate cover, proceed as follows:

1. Make certain the machine is disconnected from the power source.
2. Remove the blade guard and splitter assembly from the saw.
3. Carefully remove the saw blade and scoring blade.
4. Unscrew the (4) slot head screws and remove the side plate cover (A) Fig. 1, which is done thru the rear of the machine.

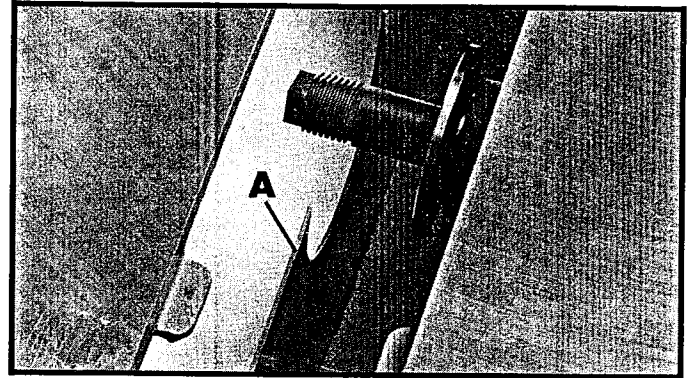


Fig. 1

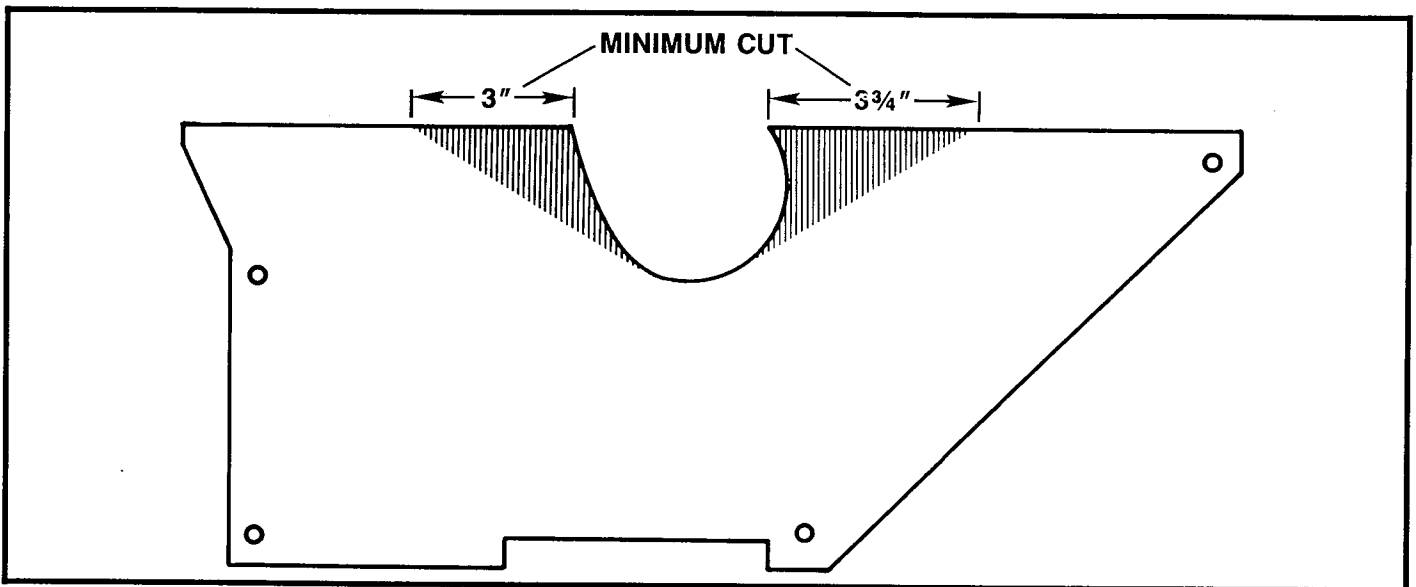


Fig. 2

5. Place the side plate cover on a flat surface and mark the area as indicated in Fig. 2, where the modifications to the cover must be made. The shaded area of the drawing Fig. 2, indicates the minimum amount of material that must be removed from the cover to allow the use of dado blades.

6. Using a band saw, cut the side plate cover as shown in Fig. 3. After cutting, be careful to remove the burrs and sharp edges along its cutting edge, and reinstall the side plate cover inside the saw with the four slot head screws that were removed in Step 4.

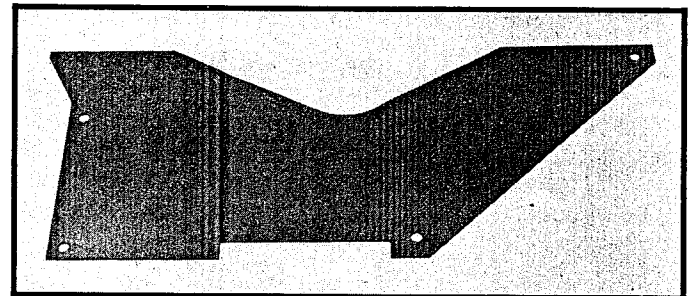


Fig. 3

## INSTALLING DADO HEADS SETS

1. Place the Dado extension on the arbor and tighten with wrench (A) Fig. 4, while holding arbor with allen wrench (B) inserted into end of arbor as shown.

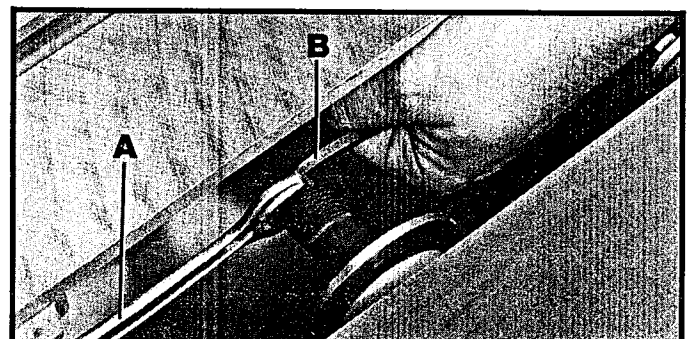


Fig. 4

2. Install the required width of dado cutters on the arbor extension and install the arbor nut (C) Fig. 5. NOTE: If necessary, the standard 1/4" wide spacer can be used between the arbor nut and dado blade to tighten the dado cutters on the arbor, or for very narrow dado cuts the accessory 43-823 1/2" or 1" wide spacers can be used. Tighten the arbor nut (C) Fig. 5, with wrench (D) while holding arbor with allen wrench (E) inserted into end of arbor.

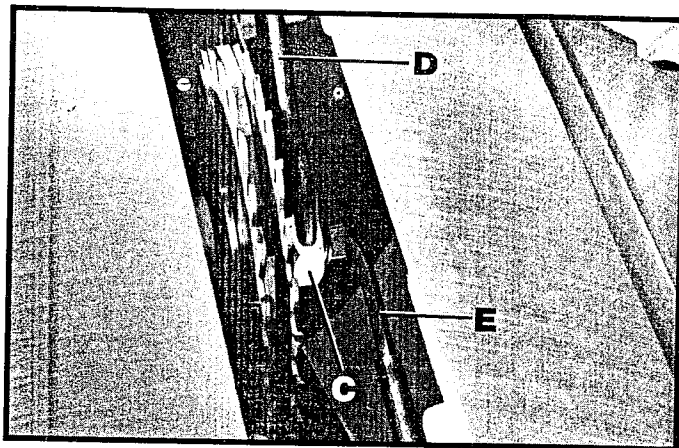


Fig. 5

## PREPARING TABLE INSERTS

When dado cutting on the RT-31 Panel Saw, it is necessary to construct dado table inserts from hardwood, such as oak, cherry, etc. NOTE: Do not use soft woods for these inserts. Proceed as follows:

1. Using the regular table insert as a template Fig. 6, trace its shape on a piece of **hard wood** that is 9/16" thick as shown.
2. Cut out this shape on a band saw and form it until it fits firmly in the table opening.
3. With the required dado blades firmly tightened on the arbor, move the arbor to its lowest position and place the wooden insert in the table opening.
4. Be certain the blade is in a straight 90 degree position to the table top.
5. Secure the blank insert in the saw table using lumber as hold-downs clamped in four places, similar to the method used in Fig. 7.
6. Apply electrical power to the saw. Raise the arbor slowly and allow the blade to cut its way thru the insert from below until the dado cutter is at its desired height, as shown in Figs. 7 & 8. **DO NOT FORCE THE CUT.** Additional inserts can be cut similar to this method to accommodate varying cutting depths and widths of cutters.

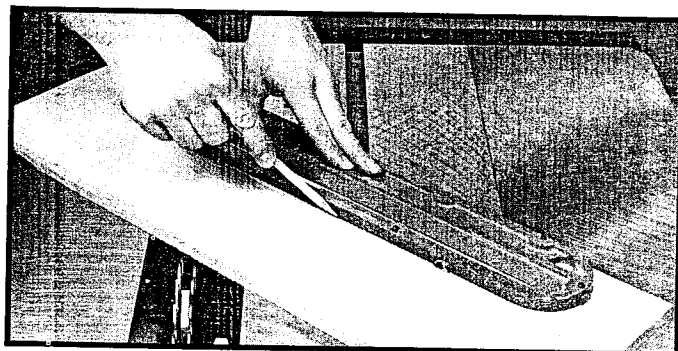


Fig. 6

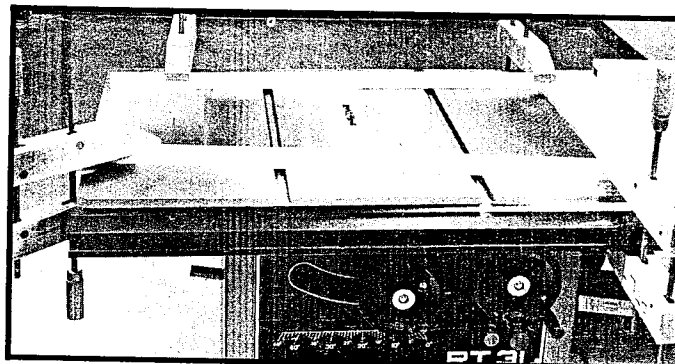


Fig. 7

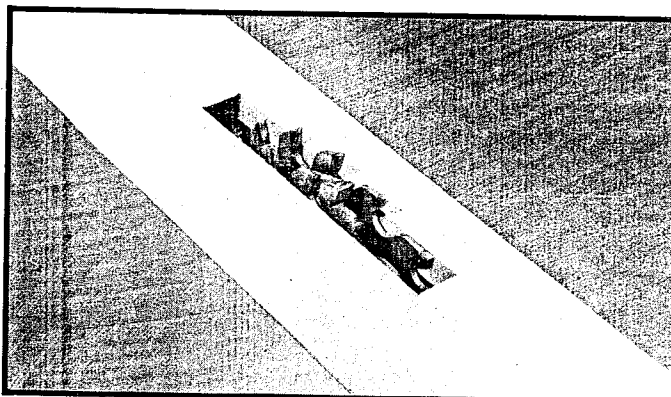
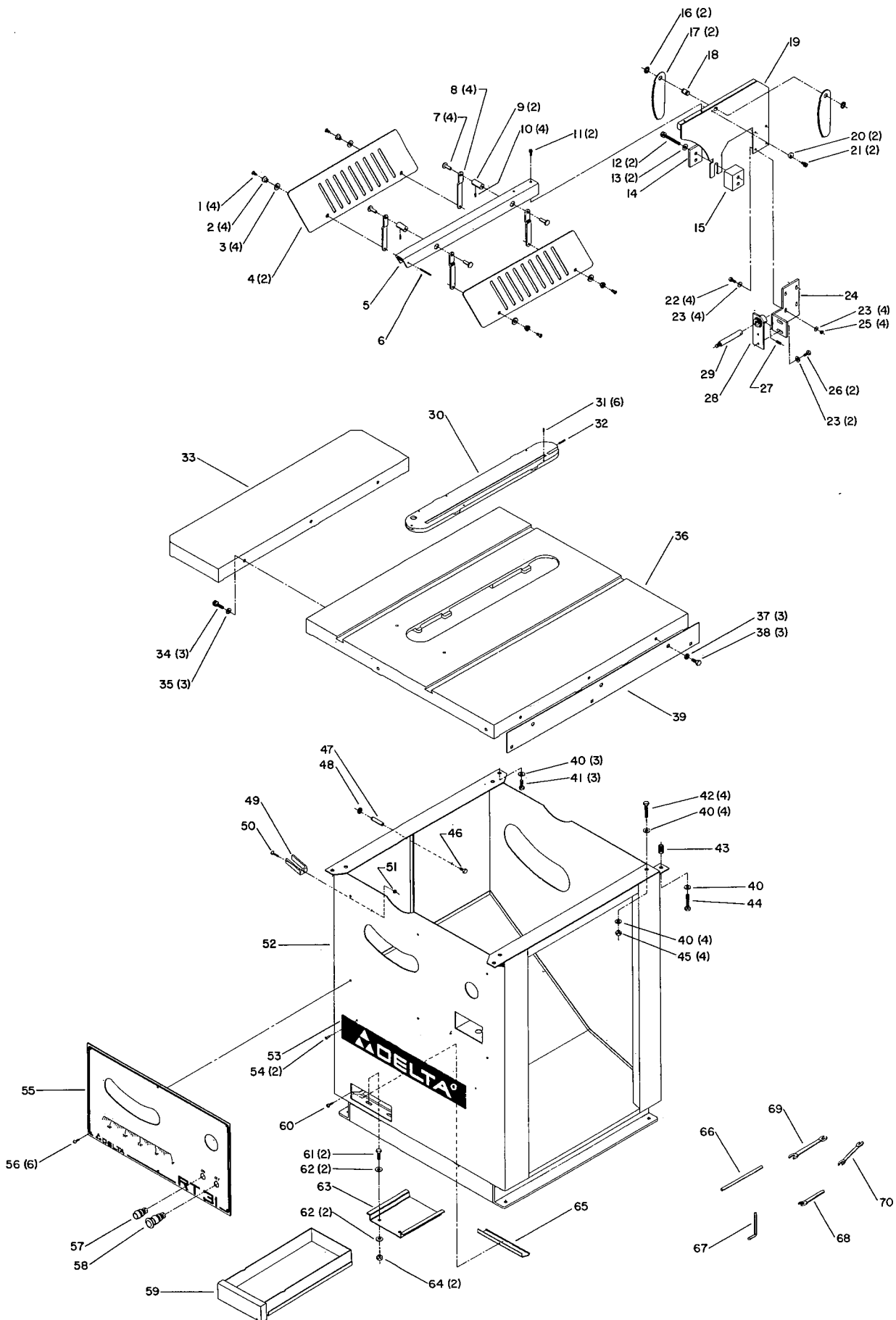


Fig. 8



## REPLACEMENT PARTS

Ref. No.	Part No.	Description
*	422-31-354-0001	Blade Guard Assembly, Const. of:
1	1246155	(DIN 963) M6 x 12mm Slot Flat Hd. Scr.
2	422-31-017-0005	Bushing (See Service Note A)
3	422-31-104-0001	Washer
4	422-31-054-0001	Blade Guard
5	422-31-089-0001	Guard Support
6	1246193	(DIN 1481) Ø6 x 60mm Roll Pin
7	422-31-071-0002	Pin
8	422-31-004-0001	Bar
9	422-31-017-0001	Bushing
10	1246137	(DIN 913) M5 x 8mm Hex Soc. Set Scr. (See Service Note A)
11	1246056	(DIN 912) M6 x 12mm Hex Soc. Hd. Cap Scr.
12	1246198	(DIN 912) M10 x 60mm Soc. Hd. Cap Scr.
13	1243502	(DIN 125) Ø10mm Flat Washer
14	422-31-104-0009	Spacer
15	422-31-104-0010	Spacer
16	1243497	(DIN 471) 12e External Retaining Ring
17	422-31-047-0001	Anti-Kick Back Finger
18	422-31-071-0003	Pin
19	422-31-086-0001	Splitter
20	422-31-104-0007	Washer
21	1243379	(DIN 912) M6 x 10mm Soc. Hd. Cap Scr.
22	1246015	(DIN 933) M6 x 20mm Hex Hd. Cap Scr.
23	904-01-010-1604	1/4" Flat Washer
24	422-31-014-0001	Splitter Bracket
25	1243456	(DIN 934) M6 Hex Nut
26	1246013	(DIN 933) M6 x 12mm Hex Hd. Cap Scr.
27	1246009	(DIN 913) M8 x 10mm Hex Soc. Set Scr.
28	422-31-027-0001	Guard Clamp
29	422-31-071-0001	Pin
30	422-31-363-0001	Table Insert Assy., Incl:
31	1246137	(DIN 913) M5 x 8mm Hex Soc. Set Scr.
32	1246109	(DIN 1481) Ø5 x 16mm Roll Pin
33	422-31-109-0001	Extension Wing
34	1246074	(DIN 912) M10 x 30mm Soc. Hd. Cap Scr.
35	1243360	(DIN 7980) Ø10mm Lockwasher
36	422-31-091-0001	Table
37	1243502	(DIN 125) Ø10mm Flat Washer
38	1246148	(DIN 933) M10 x 18mm Hex Hd. Cap Scr.
39	422-29-072-0004	Adapter Plate
40	1243502	(DIN 125) Ø10mm Flat Washer
41	1246018	(DIN 933) M10 x 25mm Hex Hd. Cap Scr.
42	1246035	(DIN 933) M10 x 30mm Hex Hd. Cap Scr.
43	422-31-112-0001	Adjusting Screw
44	1246029	(DIN 933) M10 x 40mm Hex Hd. Cap Scr.
45	1243496	(DIN 934) M10 Hex Nut
46	1246013	(DIN 933) M6 x 12mm Hex Hd. Cap Scr.
47	422-31-071-0012	Pin
48	1243497	(DIN 471) 12e External Retaining Ring
49	422-31-014-0006	Bracket
50	1246135	(DIN 963) M6 x 16mm Slot Flat Hd. Scr.
51	1243456	(DIN 934) M6 Hex Nut
52	422-31-305-0001	Base, Incl.:
53	428-07-137-0001	Nameplate
54	428-06-079-0001	Rivit
55	422-31-123-0001	Panel
56	1246130	(DIN 84) M6 x 16mm Slot Cheese Hd. Mach. Scr.
57	438-01-017-0173	On Button w/Switch
58	438-01-017-0172	Off Button w/Switch
59	422-31-013-0001	Accessory Tray
60	901-06-133-1263	#10-24 x 3/8" Type F Self Tap Pan Hd. Scr.
61	1246034	(DIN 933) M8 x 20mm Hex Hd. Cap Scr.
62	904-01-010-1605	5/16" Flat Washer
63	422-31-055-0001	Guide
64	1243398	(DIN 934) M8 Hex Nut
65	422-31-122-0002	Flat Spring
66	422-29-101-0003	Lever
67	955-03-020-2200	5/16" Allen Wrench
68	432-07-101-0001	Open End Wrench
69	422-31-101-0001	Wrench
70	422-31-101-0002	17 x 19mm Wrench

\* NOT SHOWN ASSEMBLED

### SERVICE NOTES:

A - Install new part with Loctite to prevent loosening during operation.

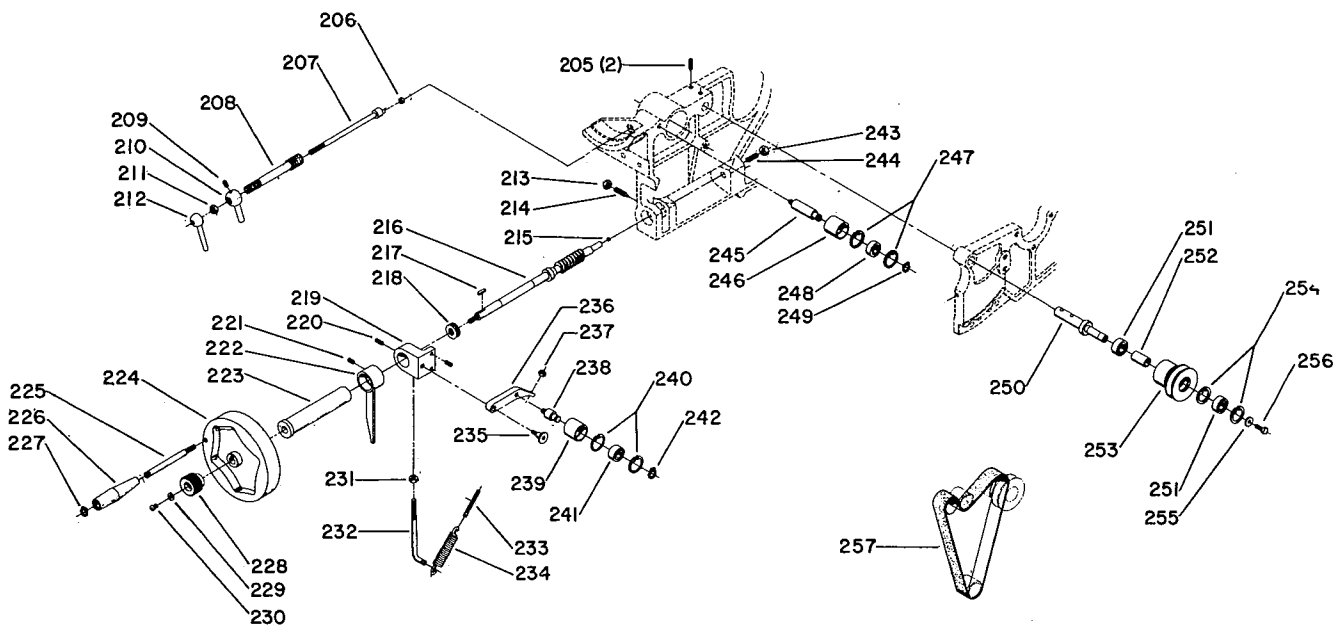
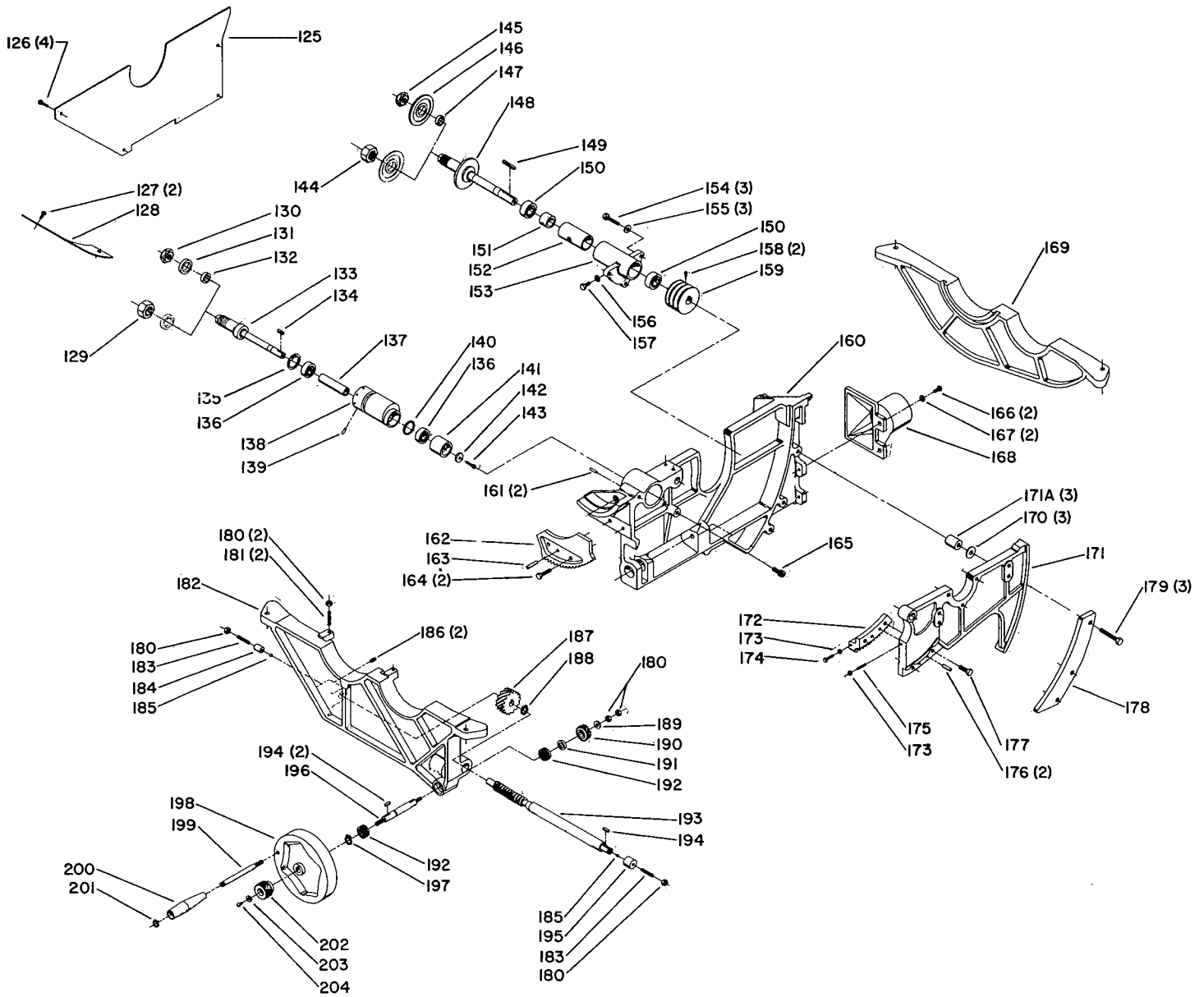


## REPLACEMENT PARTS

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
125	422-29-031-0001	Cover	190	428-07-051-0013	Gear
126	1246130	(DIN 84) M6 x 16mm Slot Cheese Hd. Mach. Scr.	191	422-31-104-0006	Spacer
127	1246001	(DIN 84) M5 x 12mm Slot Cheese Hd. Mach. Scr.	192	1246141	Bearing
128	422-29-031-0003	Dust Cover	193	422-31-051-0002	Tilt Worm Gear
129	422-30-079-0009	Scoring Extension Nut (used for Dado operations)	194	428-06-079-0003	Key
130	422-31-079-0002	Scoring Arbor Nut (used for standard cutting operations)	195	422-31-017-0007	Bushing
131	422-31-103-0001	Flange (used for standard cutting operations)	196	422-31-106-0003	Tilt Handwheel Shaft
132	422-31-104-0004	Spacer	197	1246196	(DIN 471) 15e External Retaining Ring
133	422-31-003-0001	Scoring Arbor w/Dado Extension	198	422-31-100-0001	Handwheel
134	428-06-079-0003	Key	199	428-06-111-0001	Handle Stud
135	1246145	(DIN 472) 35i Internal Retaining Ring	200	428-06-067-0001	Handle
136	422-29-139-0002	Bearing	201	1246026	(DIN 6799) RS-8 Retaining Ring
137	422-31-017-0003	Bushing	202	422-31-067-0002	Wheel Lock Nut
138	422-31-014-0002	Scoring Arbor Bracket	203	1246102	(DIN 125) Ø5mm Flat Washer
139	1246147	(DIN 1481) Ø3 x 14mm Roll Pin	204	1246001	(DIN 84) M5 x 12mm Slot Cheese Hd. Mach. Scr.
140	422-30-079-0002	Wave Washer	205	1246041	(DIN 914) M8 x 16mm Hex Soc. Set Scr.
141	422-31-130-0001	Pulley	206	422-31-068-0002	Lock
142	428-06-104-0002	Washer	207	422-31-106-0001	Adjusting Shaft
143	1246004	(DIN 912) M6 x 16mm Hex Soc Hd. Cap. Scr.	208	422-31-106-0002	Locking Shaft
144	422-30-079-0008	Arbor Nut (for use with Dado Blades)	209	1243339	(DIN 913) M6 x 18mm Hex Soc. Set Scr.
145	422-31-079-0003	Arbor Nut (for use with Standard Blades)	210	422-31-117-0001	Lock Lever
146	422-29-103-0001	Flange	211	1243496	(DIN 934) M10 Hex Nut
147	422-31-104-0004	Spacer (for use with Standard Blades)	212	422-29-117-0001	Lock Lever
148	422-31-003-0002	Arbor w/Flange and Dado Extension	213	1243496	(DIN 934) M10 Hex Nut
149	428-07-079-0005	Key	214	1246134	(DIN 915) M10 x 25mm Hex Soc. Set Scr.
150	422-31-139-0001	Bearing	215	1246197	(DIN 5401) 5/16" Dia. Ball
151	422-31-104-0003	Collar	216	422-31-051-0003	Elevating Worm Gear
152	422-31-017-0004	Bushing	217	428-06-079-0003	Key
153	422-31-014-0003	Arbor Bracket	218	1246141	Bearing
154	1246017	(DIN 933) M8 x 30mm Hex Hd. Cap Scr.	219	422-31-089-0002	Pivot Support
155	904-01-010-1605	5/16" Flat Washer	220	1246009	(DIN 913) M8 x 10 Hex Soc. Set Scr.
156	1246157	(DIN 7980) Ø8 Lockwasher	221	1243339	(DIN 913) M6 x 18mm Hex Soc. Set Scr.
157	1246034	(DIN 933) M8 x 20mm Hex Hd. Cap Scr.	222	422-31-075-0001	Pointer
158	1243321	(DIN 913) M6 x 10mm Hex Soc. Set Scr.	223	422-31-100-0002	Wheel Hub
159	422-31-130-0002	Arbor Pulley	224	422-31-100-0001	Handwheel
160	422-31-102-0001	Yoke	225	428-06-111-0001	Handle Stud
161	1246147	(DIN 1481) Ø3 x 14mm Roll Pin	226	428-06-067-0001	Handle
162	422-29-051-0002	Rack-Tilt	227	1246026	(DIN 6799) RS-8 Retaining Ring
163	1243550	(DIN 1481) Ø8 x 20mm Roll Pin	228	422-31-067-0002	Wheel Lock Nut
164	1246034	(DIN 933) M8 x 20mm Hex Hd. Cap Scr.	229	1246102	(DIN 125) Ø5mm Flat Washer
165	1246122	(DIN 912) M6 x 16mm Hex Soc. Hd. Cap. Scr.	230	1246001	(DIN 84) M5 x 12mm Slot Cheese Hd. Mach. Scr.
166	1246113	(DIN 84) M8 x 20mm Slot Cheese Hd. Mach. Scr.	231	1243496	(DIN 934) M10 Hex Nut
167	904-01-010-1605	5/16" Flat Washer	232	422-31-071-0010	Spring Pin
168	422-29-026-0001	Dust Chute	233	422-31-112-0002	Adjusting Screw
169	422-31-014-0004	Rear Trunnion	234	422-31-122-0003	Spring
170	422-29-104-0007	Spacer	235	422-31-071-0009	Pin
171	422-31-314-0001	Elevating Bracket Incl:(See Service Note B)	236	422-31-090-0001	Arm
171A	Three (3) Spacers	Not available as individual replacement part (See Service Note B)	237	1243456	(DIN 934) M6 Hex Nut
172	422-29-051-0001	Elevating Rack	238	422-31-071-0008	Pin
173	1243456	(DIN 934) M6 Hex Nut	239	422-31-130-0004	Flat Pulley
174	1246015	(DIN 933) M6 x 20mm Hex Hd. Cap Scr.	240	1246195	(DIN 472) 32i Internal Retaining Ring
175	1246124	(DIN 913) M6 x 25mm Hex Soc. Set Scr.	241	422-31-139-0002	Bearing
176	1243550	(DIN 1481) Ø8 x 20mm Roll Pin	242	1246196	(DIN 471) 15e External Retaining Ring
177	1246018	(DIN 933) M10 x 25mm Hex Hd. Cap Scr.	243	1243398	(DIN 934) M8 Hex Nut
178	422-31-079-0004	Retainer	244	1246150	(DIN 913) M8 x 25mm Hex Soc. Set Scr.
179	1246099	(DIN 933) M10 x 50mm Hex Hd. Cap Scr.	245	422-31-071-0007	Pin
180	1243398	(DIN 934) M8 Hex Nut	246	422-31-130-0004	Flat Pulley
181	1246150	(DIN 913) M8 x 25mm Hex Soc. Set Scr.	247	1246195	(DIN 472) 32i Internal Retaining Ring
182	422-31-014-0005	Front Trunnion Bracket	248	422-31-139-0002	Bearing
183	1246112	(DIN 913) M8 x 35mm Hex Soc. Set Scr.	249	1246196	(DIN 471) 15e External Retaining Ring
184	422-31-017-0006	Bushing	250	422-31-071-0006	Pin
185	1246197	(DIN 5401) 5/16" Dia. Ball	251	422-31-139-0002	Bearing
186	1246009	(DIN 913) M8 x 10mm Hex Soc. Set Scr.	252	422-31-104-0005	Spacer
187	422-31-051-0001	Gear	253	422-31-130-0003	Pulley
188	1243301	(DIN 471) 16e External Retaining Ring	254	1246195	(DIN 472) 32i Internal Retaining Ring
189	1243526	(DIN 125) Ø8 x 24mm Flat Washer	255	422-29-079-0001	Washer
			256	1246078	(DIN 933) M8 x 15mm Hex Hd. Cap Scr.
			257	422-31-133-0002	Belt

### SERVICE NOTES:

B - When replacing Elevating Bracket Ref. No. 171, old Spacer Ref. No. 171A must be discarded. Elevating Bracket comes cast with three (3) Spacers attached, which must be broken off and used with new part.



## REPLACEMENT PARTS

Ref. No.	Part No.	Description
300	422-29-133-0001	Matched Set of Three (3) V-Belts, 512mm O.C.
301	422-31-133-0001	V-Belt, 737mm O.C.
302	422-31-130-0005	Motor Pulley (for use with Three Phase Motors)
303	422-31-130-0006	Motor Pulley (for use with Single Phase Motors)
304	1243321	(DIN 913) M6 x 10mm Hex Soc. Set Scr.
305	422-31-072-0001	Motor Plate
306	1246035	(DIN 933) M10 x 30mm Hex Hd. Cap Scr.
307	422-29-079-0015	Washer
308	1243502	(DIN 125) Ø10mm Flat Washer
309	1246099	(DIN 933) M10 x 50mm Hex Hd. Cap Scr.
310	422-31-104-0011	Motor Plate Spacer (for use with Three Phase Motors)
311	1243496	(DIN 934) M10 Hex Nut
312	438-02-314-0965	Motor-200-220/440V, 3 PH, 60 HZ, 5 H.P.
313	83-069	Motor-230V, 1 PH, 60 HZ, 3 H.P.
*	422-31-350-0001	Miter Gage, Const. of:
325	422-29-089-0001	Stop Support
326	422-29-108-0002	Rod
327	1243321	(DIN 913) M6 x 10mm Hex Soc. Set Scr.
328	422-29-138-0004	Knob
329	422-29-108-0001	Stop Rod
330	422-31-067-0003	Handle
331	1243502	(DIN 125) Ø10mm Flat Washer
332	422-29-138-0003	Knob
333	1246119	(DIN 1481) Ø3 x 16mm Roll Pin
334	422-31-067-0001	Lever
335	422-31-071-0004	Pin
336	422-31-017-0002	Bushing
337	422-31-071-0005	Pin
338	422-31-122-0001	Spring
339	422-31-071-0011	Hinge Pin
340	1246008	(DIN 913) M5 x 12mm Hex Soc. Set Scr.
341	1246159	(DIN 913) M5 x 5mm Hex Soc. Set Scr.
342	422-31-012-0001	Miter Gage Body, Incl:
343	428-06-079-0001	Rivet
344	422-29-132-001	Scale
345	422-31-088-0001	Stop
346	422-31-111-0002	Stud
347	1243501	(DIN 84) M4 x 10mm Slot Cheese Hd. Mach. Scr.
348	422-29-075-0001	Pointer
349	1246051	(DIN 912) M5 x 12mm Hex Soc. Hd. Cap Scr.
350	422-31-004-0002	Guide Bar
351	422-29-083-0001	Shim
352	1246021	(DIN 963) M5 x 10mm Slot Flat Hd. Scr.
*	1330006	Extension Assembly, Const. of:
370	1330008	Clamp
371	1330009	Support
372	1330007	Extension
373	1243502	(DIN 125) Ø10mm Flat Washer
374	432-07-138-0007	Knob
375	1246074	(DIN 912) M10 x 30mm Hex Soc. Hd. Cap Scr.
376	1246010	(DIN 913) M8 x 16mm Hex Soc. Set Scr.
377	901-11-020-0821	1/4-20 x 3/4" Carriage Bolt
378	422-29-072-0004	Adapter Plate
379	34-876	Table (Optional Accessory)
380	422-27-089-0007	Angle Bracket
381	901-06-223-1380	#14 x 3/4" Slot Hex, Washer Face, Type AB Scr.
382	902-01-120-1034	1/4-20 Hex Nut
383	904-01-010-1614	9/32" Washer
384	422-27-089-0006	Table Support
385	901-01-060-0612	1/4-20 x 5/8" Hex Hd. Cap Scr.
386	904-01-010-1614	9/32" Washer
387	901-06-223-1380	#14 x 3/4" Slot Hex, Washer Face, Type AB Scr.
388	422-27-066-0001	Leg, Incl:
389	422-27-412-0001	Foot
390	422-27-055-0003	Front Guide Rail, Incl:
391	400-06-432-0001	Scale
392	902-01-010-5900	3/8-16 Hex Nut
393	904-01-010-1615	13/32" Washer
394	422-27-111-0003	Stud
395	902-01-010-1207	3/8-24 Hex Nut
396	902-01-010-1300	5/16-18 Hex Nut
397	422-27-048-0001	Foot-Rear Support
398	422-27-068-0003	Locking Lug
399	905-01-010-2702	1/4 x 5/8" Roll Pin
400	904-01-010-1620	11/32" Washer
401	424-12-060-0003	Knob
402	901-02-050-5634	#6-32 x 1/2" Fillister Hd. Scr.
403	904-01-043-1370	#6 Washer, Type B
404	400-06-375-0001	Cursor
405	400-06-312-0001	Fence Body Assy, Incl:
406	422-27-137-0002	Nameplate
407	901-06-450-2250	#4 x 3/16" Drive Screw
408	422-27-112-0004	Nylon Screw
409	422-27-112-0003	Slide Adjusting Screw
410	400-06-384-0002	Adjusting Slide Assy, Incl:
411	422-27-084-0006	Nylon Slide
412	422-27-079-0001	Retainer
413	422-27-112-0002	Spring Plunger
414	422-27-104-0002	Thrust Washer
415	422-27-106-0003	Control Shaft
416	905-01-103-1370	Coiled Spring Pin
417	422-27-019-0002	Cam
418	1087659	Handle
419	1087658	5/16 x 2-1/2" Rd. Hd. Scr.
420	400-06-327-0001	Clamp Assembly
421	34-894	43" Fence
423	955-03-010-0006	Allen Wrench

\* NOT SHOWN ASSEMBLED

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